

# **EPA Jacket 83529-57**

# Material Sent for Data Extraction

Reg # 83529-87

Description: Revised basic CSF

## Material(s) Sent to Data Extraction Contractors:

☐ New Stamped Label Dated \_\_\_\_\_

☐ Notification Dated \_\_\_\_\_

☒ New CSF(s) Dated 8/5/14

☐ Other: \_\_\_\_\_

Decision #: 520947

Other Action/Comments: \_\_\_\_\_

Do not file this cover sheet. Please discard after processing.

Attach this coversheet to the top of the material or jacket. It must be well organized and clipped together, NOT STAPLED. Then give the material with this coversheet to staff in the Information Services Center (Room S-4900).

Reviewer: Kathryn Montague

Phone: (703)305-0123 Division: RD/PM Team 23

Date: 1/10/17



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 9, 2017

Anna Armstrong  
Agent for Sharda USA, LLC  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

Subject: CSF Amendment – Revising basic CSF – changed registered source of active ingredient  
Product Name: Sharda Metolachlor 84.4EC-D  
EPA Registration Number: 83529-57  
Application Date: August 5, 2016  
Decision Number: 520947

Dear Ms. Armstrong:

The Confidential Statement of Formula (CSF) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable. This approval does not affect any conditions that were previously imposed on this registration. You continue to be subject to existing conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following CSFs:

- Basic CSF dated 08/05/2016

Any CSFs other than those listed above are superseded/no longer valid. If you have any questions, please contact Kathryn Montague by phone at 703-305-1423, or via email at [montague.kathryn@epa.gov](mailto:montague.kathryn@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Kathryn V. Montague".

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

S: 990106

Milestone Email: jmw@wagnerreg.com

Regulatory Type: Product Registration - Section 3

Resubmission: ☐ Yes ☒ No

Print Letter

Application Type: Amendment

Fee For Service: ☐ Yes ☒ No

Enter More Information

Company: 83529 SHARDA USA LLC

Billable: ☐ Yes ☒ No

Tracking

V

Risk Manager: Registration Division, Risk Management Team 23

Product #: 83529-57 Product Name: Sharda Metolachlor 84.4EC-D

Override#:

Me Too  
Section 3: 66222-87Me Too Product  
Name: PARALLEL

...

Application Date: 05-Aug-2016

OPP Rec'd Date: 05-Aug-2016

Front End Date: 08-Aug-2016

Risk Manager Send Date: 09-Aug-2016

FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track: ☐New Ingredient: ☐

View/Edit

## Receipt Description:

Portal submission pkg. #13222. Amendment to add technical as the source of the active ingredient to the draft Basic CSF.

New Ingredient

Request Date:

New Ingredient

Received Date:

Form A: ☐

Signature Date:

Form B: ☐

Signature Date:

# FAST-TRACK AMENDMENTS – Completeness Screening Checklist

Expert's In-Processing Signature: Margen K.M

Date: 8/10/16

PM #: 23

EPA Reg. Number: <u>83529-37</u>		EPA Receipt Date: <u>8/5/16</u>		
	Checklist Item	Yes	No	N/A
1	Application Form (EPA Form 8570-1) - signed?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	Confidential Statement of Formula (EPA Form 8570-29) - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	Certification with Respect to Citation of Data (EPA Form 8570-34) - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	Formulator's Exemption Statement (EPA Form 8570-27) - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	Data Matrix (EPA Form 8570-35) [Applicable for adding me-too uses] - signed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Selective Method?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b) Cite-All Method?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c) Public copy of Matrix provided? See PR Notice 98-5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	Is Label included? (5 copies)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	a) Electronic Label submitted?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Comments:</b> <div style="display: flex; justify-content: space-between; align-items: flex-start;"> <div style="text-align: center;"> <p>CF in Documentation</p> <p>Inert Review</p> </div> <div style="text-align: right;"> <p>Inerts approved for use as intended</p> <p><i>V. Santan</i> 8/17/16</p> </div> </div>				



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

August 9, 2016

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

CHERYL WAGNER  
WAGNER REGULATORY ASSOCIATES, INC.  
SHARDA USA LLC  
PO Box 640  
HOCKESSIN, DE 19707-

PRODUCT NAME: Sharda Metolachlor 84.4EC-D  
COMPANY NAME: SHARDA USA LLC  
OPP IDENTIFICATION NUMBER:  
EPA FILE SYMBOL: 83529-57  
EPA RECEIPT DATE: 08/05/16

SUBJECT: RECEIPT OF AMENDMENT

DEAR REGISTRANT:

The Office of Pesticide Programs has received your application for an amendment and it has passed an administrative screen for completeness.

During the initial screen we determined that the application appears to qualify for fast track review. The package will now be forwarded to the Product Manager for review to determine its acceptability for fast track status.

If you have any questions, please contact Registration Division, Risk Management Team 23, at (703) 305-1243.

Sincerely,

A handwritten signature in black ink, appearing to be "S. [unclear]", is written over the word "Sincerely,".

Front End Processing Staff  
Information Services Branch  
Information Technology & Resources Management Division

13

**Fee for Service**

{990106A~

This package includes the following

☐ New Registration

☒ Amendment

☐ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: \_\_\_\_

for Division

☐ AD

☐ BPPD

☒ RD

Risk Mgr. 23

Receipt No.

S- 990106

EPA File Symbol/Reg. No.

83529-57

Pin-Punch Date:

8/5/2016

☒ This item is NOT subject to FFS action.

Action Code:

Requested:

Granted:

Amount Due: \$ \_\_\_\_\_

Parent/Child Decisions:

☐ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer: Jennifer Haines

Date: 8/9/16

Remarks:

CSF; Inerts review

DOCUMENTUM

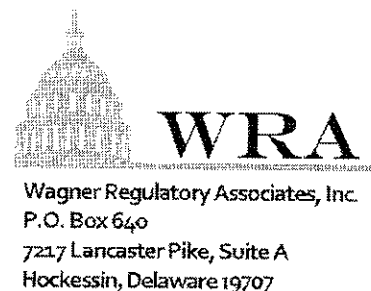
This is a reproduction of EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.



E-Submission

August 5, 2016

Document Processing Desk (Amend)  
ATTN: Kathryn Montague, PM 23  
Registration Division  
U.S. Environmental Protection Agency  
Office of Pesticide Programs (7505P)  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202-4501



Dear Ms. Montague:

**Subject: Sharda Metolachlor 84.4EC-D- EPA Reg. No. 83529-57, Amendment to Basic CSF**

Wagner Regulatory Associates, Inc., as agent for Sharda USA LLC, respectfully submits the enclosed confidential statement of formula (CSF) amendment.

This amendment is submitted [REDACTED]  
[REDACTED]. We have added this technical as the source of the active ingredient to the draft Basic CSF. [REDACTED]  
[REDACTED] of the inert ingredients were adjusted. It is not expected that these changes would have any impact on the product chemistry or acute toxicity data.

In support of this amendment, the following documents are attached:

- Letter from Sharda USA LLC appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration (8570-1)
- Confidential Statement of Formula (8570-4)
- Formulators Exemption (8570-27)

If you have any questions about this submission, please contact the undersigned at [anna@wagnerreg.com](mailto:anna@wagnerreg.com) or (302) 510-0039.

Respectfully submitted,

Anna Armstrong  
Agent for Sharda USA LLC

DOCUMENTUM



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

January 9, 2017

Ms. Kt Woodall  
Agent for Sharda USA, LLC  
Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

Subject: Notification per PRN 98-10 – Add an alternate brand name  
Product Name: Sharda Metolachlor 84.4EC-D  
EPA Registration Number: 83529-57  
Application Date: September 6, 2016  
Decision Number: 521552

Dear Ms. Woodall:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

The alternate brand name Meto-S has been added to the product record.

If you have any questions, you may contact Kathryn Montague at 703-305-1243 or via email at [montague.kathryn@epa.gov](mailto:montague.kathryn@epa.gov).

Sincerely,

A handwritten signature in black ink, reading "Kathryn V. Montague", is positioned above the typed name and title.

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

## Montague, Kathryn V.

---

**To:** Kt Woodall  
**Cc:** Samek, Karen; Rowland, Grant; Anna Armstrong  
**Subject:** RE: Sharda Metolachlor 84.4EC-D - 83529-57 - Notification Withdrawal

Hi, Kt,

We acknowledge your withdrawal of this notification.

Thank you,  
Kay

**From:** Kt Woodall [mailto:ktwoodall@wagnerreg.com]  
**Sent:** Wednesday, October 19, 2016 8:09 AM  
**To:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>  
**Cc:** Samek, Karen <Samek.Karen@epa.gov>; Rowland, Grant <Rowland.Grant@epa.gov>; Anna Armstrong <Anna@wagnerreg.com>  
**Subject:** Sharda Metolachlor 84.4EC-D - 83529-57 - Notification Withdrawal

Wagner Regulatory Associates, Inc., as agent for Sharda USA LLC, respectfully withdraws the subject Notification application dated September 6<sup>th</sup>, 2016 – Decision No. 521552.

Please confirm EPA's withdrawal of this application.

Thank you for your assistance,

Kt Woodall

Wagner Regulatory Associates, Inc.  
7217 Lancaster Pike, Suite A  
Hockessin, DE 19707  
[KtWoodall@wagnerreg.com](mailto:KtWoodall@wagnerreg.com)

↓ into label  
amend

ABN processed  
separately

**From:** Kt Woodall  
**Sent:** Wednesday, October 19, 2016 7:32 AM  
**To:** 'Montague, Kathryn V.' <Montague.Kathryn@epa.gov>  
**Cc:** Samek, Karen <Samek.Karen@epa.gov>; Rowland, Grant <Rowland.Grant@epa.gov>; Anna - WRA <anna@wagnerreg.com>  
**Subject:** RE: Sharda Metolachlor 84.4EC-D - 83529-57

Thank you Kay – I'll send a separate email with the withdraw.

I really appreciate all your help!

Kt Woodall

Wagner Regulatory Associates, Inc.  
7217 Lancaster Pike, Suite A  
Hockessin, DE 19707  
[KtWoodall@wagnerreg.com](mailto:KtWoodall@wagnerreg.com)

**From:** Montague, Kathryn V. [<mailto:Montague.Kathryn@epa.gov>]  
**Sent:** Tuesday, October 18, 2016 3:42 PM  
**To:** Kt Woodall <[ktwoodall@wagnerreg.com](mailto:ktwoodall@wagnerreg.com)>  
**Cc:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>; Rowland, Grant <[Rowland.Grant@epa.gov](mailto:Rowland.Grant@epa.gov)>  
**Subject:** RE: Sharda Metolachlor 84.4EC-D - 83529-57

Hi, Kt,

That's fine...could you request a withdrawal of the first notification (Sept. 6<sup>th</sup> submission), as that is being tracked separately? The decision number is 521552.

Thank you,  
Kay

**From:** Kt Woodall [<mailto:ktwoodall@wagnerreg.com>]  
**Sent:** Tuesday, October 18, 2016 1:29 PM  
**To:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Cc:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Subject:** RE: Sharda Metolachlor 84.4EC-D - 83529-57  
**Importance:** High

Afternoon Kay – Are we able to replace the labels submitted September 6<sup>th</sup>, 16<sup>th</sup>, & October 14<sup>th</sup>, with the attached?

I'm so sorry for the confusion.

*Kt Woodall*

**Wagner Regulatory Associates, Inc.**  
7217 Lancaster Pike, Suite A  
Hockessin, DE 19707  
[KtWoodall@wagnerreg.com](mailto:KtWoodall@wagnerreg.com)

**From:** Kt Woodall  
**Sent:** Monday, October 17, 2016 3:10 PM  
**To:** EPA - Kathryn Montague, PM 23 <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** Sharda Metolachlor 84.4EC-D - 83529-57  
**Importance:** High

Hi Kay – We Submitted an amendment for Sharda Metolachlor 84.4EC-D - 83529-57 this past Friday. However I didn't realize there were other actions pending.

Am I able to send you a revised label combining everything into one?



*Kt Woodall*

**Wagner Regulatory Associates, Inc.**  
Federal Regulatory Associate  
7217 Lancaster Pike, Suite A  
Hockessin, DE 19707

Submission via CDX Portal

September 6<sup>th</sup>, 2016

Document Processing Desk (NOTIF)  
ATTN: Kathryn Montague, PM 23  
Registration Division  
U.S. Environmental Protection Agency  
Office of Pesticide Programs (7504P)  
Room S-4900, One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202-4501



Dear Ms. Montague,

**Subject: Sharda Metolachlor 84.4EC-D – EPA Registration Number 83529-57 - Notification**

Wagner Regulatory Associates Inc., as agent for Sharda USA LLC, respectfully submits the enclosed notification to add the Alternate Brand Name - **Meto-S**. No other changes have been made to the label. The following documents are enclosed:

- Letter from Sharda USA LLC appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration (8570-1)
- Copies of Labeling (Clean& Highlighted)

If you have any questions about this submission please contact the undersigned at (302) 635-7289 or [ktwoodall@wagnerreg.com](mailto:ktwoodall@wagnerreg.com).

Respectfully submitted,



Kt Woodall  
Agent for Sharda USA LLC

Enclosures

This is a reproduction of EPA Form 8570-1 (Rev. 8-94) Previous editions are obsolete.

**GROUP 15 HERBICIDE**

# Sharda Metolachlor 84.4EC-D

## ABN: Meto-S

Herbicide for use in corn

<b>ACTIVE INGREDIENT:</b>	<b>WT. BY %</b>
Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide.....	84.4%
<b>OTHER INGREDIENTS:</b> .....	<u>15.6%</u>
<b>TOTAL:</b> .....	<b>100.00%</b>
Contains 7.8 lbs. of active ingredient per gallon.	

### KEEP OUT OF REACH OF CHILDREN

### CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF INHALED:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>Call a poison control center or doctor for further treatment advice.</li> </ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Have person sip a glass of water if able to swallow.</li> <li>Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>Do not give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency involving this product, call CHEMTREC at 1-800-424-9300.	

**Physical and Chemical Hazard:** Do not mix or allow coming in contact with oxidizing agents.  
Hazardous chemical reaction may occur.

[See inside booklet for complete [additional] [First Aid,] Precautionary Statements, and Directions For Use.]

EPA Reg. No. 83529-57

EPA Est. No. XXXXX-XX-XXX

Manufactured for:

**Sharda USA LLC** 7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Net Contents: \_\_\_\_\_

**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS and Domestic Animals**  
**CAUTION**

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. This product may cause skin sensitization reactions in some people.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below.

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils, polyethylene, PVC  $\geq 14$  mils, or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL STATEMENTS**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using this closed system, the mixers and loaders PPE requirements may be reduced or modified as specified in the WPS.

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters or rinsates.

**Ground Water Advisory**

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Surface Water Advisory**

Metolachlor can contaminate surface water through ground spray drift. Under some conditions, metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

**Mixing/Loading Instructions**

DO NOT allow **Sharda Metolachlor 84.4EC-D** to back-siphon into wells, spill, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

Do not mix or load **Sharda Metolachlor 84.4EC-D** within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. Do not mix or load **Sharda Metolachlor 84.4EC-D** within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of **Sharda Metolachlor 84.4EC-D** into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash-water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means that the pad must be self-contained. The pad must be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude



precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. This labeling must be in the possession of the user at the time of pesticide application.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, or nitrile rubber ≥14 mils, or neoprene rubber ≥14 mils, polyethylene, PVC ≥14 mils, or Viton ≥14 mils
- Shoes plus socks

Failure to follow the Directions for Use, Restrictions, and Precautions in this label can result in poor weed control, crop injury, and/or illegal residues.

Not for sale, use, or distribution in Nassau or Suffolk counties in New York.

Do not apply **Sharda Metolachlor 84.4EC-D** in windy conditions. Do not allow spray to overlap as crop injury can occur.

### PRODUCT INFORMATION

Observe all precautions and limitations on the labels of each state-registered product used in tank mixtures. Tank mixtures are permitted only in states where the tank mix partner product is registered.

**FOR ALL TANK MIXTURES:** It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Sharda Metolachlor 84.4EC-D** is a selective herbicide that can be used pre-plant surface-applied, pre-plant incorporated, or pre-emergence treatment in water or liquid fertilizer to control listed annual grasses and broadleaf weeds in all types of corn. Post-Emergence applications of **Sharda Metolachlor 84.4EC-D** can be made on corn.

### RESISTANCE MANAGEMENT

**Sharda Metolachlor 84.4EC-D** is a Group 15 herbicide. Weed populations may contain or develop plants that become naturally resistant to metolachlor and/or other Group 15 herbicide products. If Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control of targeted species, weed species that have developed resistance to Group 15 herbicides can dominate the weed population, resulting in partial or total loss of weed control.

#### To avoid herbicide resistance:

- Do not use **Sharda Metolachlor 84.4EC-D** consecutively with other Group 15 herbicides that have similar modes of action on targeted weed.
- Use tank mixtures and premixes from different Groups provided that the products involved are registered for the same use, have different modes of action, and/or are effective at the tank mix or prepack rate on the weed(s) concerned.
- Utilize a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated areas for loss of field efficacy.

- Contact your local state extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

### APPLICATION INSTRUCTIONS

#### SOIL TEXTURES AND APPLICATION RATES

Where rates are based on soil texture, classes are categorized as follows:

Coarse-Textured	Medium-Textured	Fine-Textured
Sand, Loamy sand, Sandy loam	Loam, Silt loam, Silt	Sandy clay loam, Silty clay loam, Clay loam, Sandy Clay, Silty loam, Silty Clay, Clay

**Coarse-textured/low organic matter soils:** Use the lower rate within the specified rate range.

**Fine-textured/high organic matter soils:** Use the higher rate within the specified rate range.

#### APPLICATION METHODS

Apply **Sharda Metolachlor 84.4EC-D** alone or in combination with specified tank mix partners following pre-plant incorporated herbicides when used according to label instructions and such use is not prohibited on the respective labels.

Thoroughly clean sprayer/application device before applying **Sharda Metolachlor 84.4EC-D**. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials to avoid crop damage and/or clogging of the application device.

#### MIXING INSTRUCTIONS

Mix **Sharda Metolachlor 84.4EC-D** alone with water or liquid fertilizer and apply as a spray:

- Fill the spray tank  $\frac{1}{4}$  -  $\frac{3}{4}$  full of water or liquid fertilizer.
- Add the specified amount of **Sharda Metolachlor 84.4EC-D**.
- Add the remaining water or liquid fertilizer.
- Maintain sufficient agitation during mixing and application to maintain a uniform emulsion.

#### TANK MIX APPLICATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Tank Mixtures:

- Fill the spray tank  $\frac{1}{4}$  full with water, and begin agitation.
- Add 2,4-D, AAtrex®, Balan®, Banvel, Canopy®, Caparol 4L®, Command®, Cotoran®, Eptam®, Gemini®, Lexone®, Lorox®, Lorox Plus, Marksman®, MSMA, Preview®, Princep®, Prowl®, Pursuit®, AAtrex + Princep, Scepter®, Sencor®, Sonalan®, or Treflan®, ensuring products disperse.
- Add **Sharda Metolachlor 84.4EC-D**.
- Add Gramoxone® Extra, Landmaster® BW, or Roundup® if these products are being used.
- Add the rest of the water.

For tank mixtures with AAtrex, Banvel, Canopy, Caparol 4L, Command, Cotoran®, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Marksman, Preview, Princep, Prowl®, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, or Treflan, liquid fertilizers can replace all or part of the water as carrier, except for AAtrex post-emergence and Banvel post-emergence tank mixes. For tank mixtures with AAtrex, refer to the AAtrex label for additional mixing instructions. For each mixture, check compatibility with liquid fertilizers before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

\*See **Special Mixing Instructions** for tank mixtures with Cotoran, and with AAtrex or Princep + Prowl under the appropriate tank mixture section.

#### Compatibility Test

Because liquid fertilizers vary, even within the same analysis, always **check compatibility with herbicide(s) prior to use**. Serious compatibility issues are most likely to occur when mixing with complete suspension or liquid fertilizers. Commercial application equipment can improve compatibility. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. To check compatibility:

- Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
- To **one** of the jars, add  $\frac{1}{4}$  tsp. (1.2 milliliters) of a compatibility agent approved for this use such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake/stir gently to mix.
- To **both** jars, add the appropriate amount of herbicide(s).

If more than one herbicide is used, add them separately in the following order:

- Dry herbicides first, flowables next, and emulsifiable concentrates last.
- After each addition, shake or stir gently to thoroughly mix.
- The appropriate amount of herbicides for this test is:

**Dry Herbicides:** For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

**Liquid Herbicides:** For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

**Note:** For **Sharda Metolachlor 84.4EC-D** tank mixtures with AAtrex + Princep, use  $\frac{1}{3}$  -  $\frac{1}{2}$  the amount of AAtrex specified and the remainder as Princep, depending on whether the 1:2 or 1:1 ratio of AAtrex to Princep is to be applied.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix.
5. Let the mixtures stand 15 minutes.
6. After 15 minutes, check jars for chemical separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates but can be remixed readily, the mixture can be sprayed as long as adequate agitation is maintained.

If the mixtures are incompatible, the following methods may improve compatibility:

- Slurry the dry herbicide(s) in water before adding, or
- Add  $\frac{1}{4}$  of the compatibility agent to the fertilizer, and the other  $\frac{1}{4}$  to the emulsifiable concentrate or flowable herbicide before adding to the mixture.

If incompatibility is still observed, do not use the mixture.

#### APPLICATION TIMING

**Sharda Metolachlor 84.4EC-D** alone or in some tank mixtures with other labeled herbicides may be applied for weed control in corn at various times. Refer to the **CORN** section of the label to determine if application timings listed below are specified.

##### Pre-Plant Surface Applications

**45 days before planting:** For minimum-tillage or no-tillage systems only, apply **Sharda Metolachlor 84.4EC-D** alone, or with **Sharda Metolachlor 84.4EC-D** tank mixtures.

**30-45 days before planting:** Make split applications, with  $\frac{2}{3}$  the specified broadcast rate for the crop and soil texture applied initially and the remaining  $\frac{1}{3}$  at planting.

**Less than 30 days before planting:** Make split applications or a single application.

Refer to individual crop to determine if early pre-plant surface application instructions are provided. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Pre-Plant Incorporated:** Apply **Sharda Metolachlor 84.4EC-D** to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a pre-plant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate **Sharda Metolachlor 84.4EC-D** after bed formation, unless specified otherwise.

**Pre-Emergence:** Apply **Sharda Metolachlor 84.4EC-D** during planting (behind the planter) or after planting but before weeds or crops emerge.

**Post-Emergence:** One application of **Sharda Metolachlor 84.4EC-D** will provide pre-emergence control or partial control of annual grasses and broadleaf weeds listed in the "**Weeds Controlled**" section of this label. Application of this product alone will not control emerged weeds; **Sharda Metolachlor 84.4EC-D** must be applied to a weed-free surface, or in tank mixture with products that provide post-emergence weed control. If weeds are present at the time of application, tank-mix with a labeled post-emergence herbicide and observe all directions for use, precautions and restrictions on the label of the tank-mix partner. For additional post-emergence information follow the crop specific label requirements identified on this label.

#### SPECIAL APPLICATION PROCEDURES

**Fall Applications in the states of Iowa, Minnesota, North Dakota, South Dakota, Wisconsin, portions of Nebraska and Illinois (see directions for use for corn section for timing of application and other instructions):** Apply **Sharda Metolachlor 84.4EC-D** on medium- and fine-textured soils with more than 2.5% organic matter that will be planted to corn the following spring. The ground can be tilled before or after application.

##### Restrictions:

- DO NOT apply to frozen ground.
- DO NOT exceed 2-3-inch incorporation depth if soil is tilled after treatment.
- If a spring application is made, the total rate of the fall application and the spring application combined must not exceed the maximum total rate for the specific crop or illegal residues can result.

**Ground Application**

Apply **Sharda Metolachlor 84.4EC-D** alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre unless otherwise specified. Use sprayers that provide accurate and uniform application. For **Sharda Metolachlor 84.4EC-D** tank mixtures with wettable powder or dry flowable formulations, screens and strainers must not be finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

**Low Carrier Volumes: Broadcast Ground Application Only**

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-CycleT, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers must be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to:

- maintain up to 35-40 psi at the nozzles
- provide sufficient agitation in tank to keep mixture in suspension.

Use a minimum of 5 gals. of spray mixture per acre. Maximum sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

**Note:** Use low pressure nozzles to reduce drift and increase application accuracy. Exercise care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Use nozzle screens used when specified by the manufacturer. Place nozzles on 20-inch centers, except flooding types which must be placed on 40-inch centers. When Flat Fan-type nozzles are used, use those with angles of 80° or 110°. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

**AERIAL APPLICATION**

Apply **Sharda Metolachlor 84.4EC-D** in water alone or in tank mixture with AAtrex, Lexone, Lorox, or Sencor in a minimum volume of 2 gals./A. Aerial applications of **Sharda Metolachlor 84.4EC-D** can also be made with Balan, Prowl, or Treflan. Do not apply under conditions where uniform coverage cannot be obtained, or when excessive spray drift may occur.

To avoid injury to sensitive crops from drift, aerial applications must adhere to the following **AERIAL USE DIRECTIONS, RESTRICTIONS AND PRECAUTIONS:**

- Nozzle height above the ground must be a maximum of 10 feet above the crop with low drift nozzles at a maximum pressure of 40 psi.
- Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle must not exceed 45 degrees.
- Nozzles and/or spray boom must not be located any closer to the end of the wing or rotor than ¼ the distance from the center of the aircraft.
- Use a maximum spray pressure of 40 psi.
- Establish a buffer zone between the area to be sprayed and sensitive crops.
- DO NOT spray when wind speed exceeds 10 mph.
- Do not apply to humans or animals.
- Do not allow flagmen and loaders to inhale spray mist or have prolonged skin contact.

To avoid injury to sensitive crops:

- Apply **Sharda Metolachlor 84.4EC-D** alone or in tank mix with AAtrex a minimum of 400 feet from sensitive plants.
- Apply **Sharda Metolachlor 84.4EC-D** + Lexone, Lorox, or Sencor a minimum of 300 feet upwind from sensitive plants.

The applicator is responsible for any loss or damage resulting from the application of **Sharda Metolachlor 84.4EC-D** in any manner not listed on this label. The applicator is responsible for following all state and local regulations and ordinances relative to spraying **Sharda Metolachlor 84.4EC-D**.

**SPRAY DRIFT MANAGEMENT**

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment- and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

**Ground Applications:** Apply using a nozzle height no more than 4 feet above the ground or crop canopy.

**Aerial Applications:** Product efficacy is reduced if the distance of the outermost nozzles on the boom exceed ¾ the length of the wingspan or rotor. Nozzles must point backward parallel with the air stream and must not be pointed downward more than 45 degrees. Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and account for the information provided in the **SPRAY DRIFT MANAGEMENT** section of this label.

**IMPORTANCE OF DROPLET SIZE**

The most effective way to reduce drift potential is to apply large droplets greater than 150-200 microns. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **WIND**, **TEMPERATURE AND HUMIDITY**, and **TEMPERATURE INVERSION** sections). The presence of sensitive crops/species, environmental conditions, and pest pressure can impact applicator decisions in balancing drift control and coverage.

**CONTROLLING DROPLET SIZE**

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

**BOOM LENGTH**

For some use patterns, reducing the effective boom length to less than  $\frac{3}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

**APPLICATION HEIGHT**

Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

**SWATH ADJUSTMENT**

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

**WIND**

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Don't apply when wind speed below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

**TEMPERATURE AND HUMIDITY**

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

**TEMPERATURE INVERSIONS**

Do not apply during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

**SENSITIVE AREAS**

**Sharda Metolachlor 84.4EC-D** must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

**APPLICATION WITH IMPREGNATED DRY BULK GRANULAR FERTILIZERS**

**Sharda Metolachlor 84.4EC-D** may be impregnated or coated on many dry bulk granular fertilizers and applied alone or with **Sharda Metolachlor 84.4EC-D** tank mixtures that are registered for pre-plant incorporation or pre-plant surface application. Follow all directions for use restrictions and precautions on the **Sharda Metolachlor 84.4EC-D** label regarding corn, rates per acre, soil texture, application methods, and rotational crops.

It is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture to comply with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Space nozzles used to spray **Sharda Metolachlor 84.4EC-D** onto the fertilizer to provide uniform spray coverage. Aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Add absorptive materials only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results are obtained when a granule of 6/30 particle size or of a size similar to that of the fertilizer materials is used. Use less than 2% by weight of absorptive material. Do not use more than 5% absorptive material by weight.

Calculate the amount of **Sharda Metolachlor 84.4EC-D**, **AAtrex**, **AAtrex + Princep**, **Princep**, **Sencor**, **Lexone**, or **Sonalan** using the following formula:

$$2,000 \text{ lbs. fertilizer/acre} \times \text{pts./A liquid/flowable product} = \text{pints of liquid/flowable product per ton of fertilizer}$$

$$2,000 \text{ lbs. of fertilizer/acre} \times \text{lbs./A dry product} = \text{pints of dry product per ton of fertilizer}$$

**Application by Pneumatic (Compressed Air) Equipment (Sharda Metolachlor 84.4EC-D alone):** High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer can cause fertilizer mixtures to build up and/or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix 1-4 pints/gallon **Sharda Metolachlor 84.4EC-D** and ExxonMobil™ Aromatic 200. Aromatic 200 is a noncombustible, nonflammable petroleum product that can be used in either a fertilizer blender or through direct injection systems. Do not use drying agents when using Aromatic 200.

If impregnating **Sharda Metolachlor 84.4EC-D** in a blender before application, substitute drying agent for the Aromatic 200 for a dryer mixture. Do not use drying agents with On-The-Go impregnation equipment.

**Precautions:** Use mixtures of **Sharda Metolachlor 84.4EC-D** and Aromatic 200 on dry fertilizer only. Poor results or crop injury can occur if these mixtures are used in water or liquid fertilizer solutions for spraying applications.

#### Restrictions:

To avoid potential for explosion:

- DO NOT impregnate **Sharda Metolachlor 84.4EC-D** on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- DO NOT use **Sharda Metolachlor 84.4EC-D** on straight limestone as absorption will not occur.
- Fertilizer blends containing limestone can be impregnated.

#### Application of Impregnated Dry Bulk Granular Fertilizer

Apply 200 to 700 pounds of the herbicide/fertilizer mixture per acre. Apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application results in unsatisfactory weed control. In areas where conventional tillage is practiced, incorporate the mixture shallowly into the soil. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced-tillage situations or in some conventional till situations, apply **Sharda Metolachlor 84.4EC-D** approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, apply **Sharda Metolachlor 84.4EC-D** approximately 14 days prior to planting. Do not use herbicide/fertilizer mixtures on crops where bedding occurs.

#### CHEMIGATION - CENTER PIVOT IRRIGATION

**Sharda Metolachlor 84.4EC-D** alone or in tank mixture with other herbicides on this label that are registered for center pivot application can be applied in irrigation water pre-emergence (after planting but before weeds or crop emerge) at specified rates listed on this label. Apply this product only through a center pivot irrigation system.

**Do not apply this product through any other type of irrigation system.**

Crop injury, reduced efficacy, and/or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.

3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Meter into irrigation water during entire period of water application.
10. Apply in  $\frac{1}{2}$ -1 inch of water. Use the lower water volume ( $\frac{1}{2}$  inch) on coarse-textured soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

**Precaution for center pivot applications:** Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control can occur. Where sprinkler distribution patterns overlap excessively, crop injury can occur.

**Note:** For information on applying in lower volumes of carrier, see **Low Carrier Application** section of this label.

#### CLEANING INSTRUCTIONS

- Do not use the same sprayer without thoroughly cleaning on sensitive crops; minute residues of **Sharda Metolachlor 84.4EC-D** in the tank can injure crops.
- Wash sprayer and spray equipment thoroughly with clean water immediately after use.
- Drain any remaining spray solution of **Sharda Metolachlor 84.4EC-D** from the spray tank and dispose of according to label disposal instructions.
- Rinse the spray tank and refill with water, adding 1 cup heavy-duty detergent per 20 gallons of water.
- Recycle this mixture through the equipment for 5 minutes, and spray out.
- Clean pump and nozzle screens thoroughly.
- Wash away any spray mixture from the outside of spray tank, nozzles or spray rig.
- Dispose of all rinse water in compliance with local, state, and Federal guidelines.

#### USE PRECAUTIONS

Where directions specify a **Sharda Metolachlor 84.4EC-D** tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow the rates, instructions, and limitations on the AAtrex or respective atrazine product label if other brands of atrazine are used.

Dry weather following pre-emergence application of **Sharda Metolachlor 84.4EC-D** or a tank mixture can reduce efficacy. Cultivate if weeds develop.

Where reference is made to weeds being partially controlled, partial control means erratic control that can range from poor to good, or consistent control at levels below what is generally considered acceptable for commercial weed control.

#### USE RESTRICTIONS

- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- Do not apply to impervious substrates such as paved or highly compacted surfaces.
- Do not apply to powdery dry or light sand soils when conditions favor wind erosion. Soil surfaces must first be settled by rainfall or irrigation.
- Do not use tail-water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least  $\frac{1}{2}$  inch of rainfall has occurred between application and the first irrigation.
- If **Sharda Metolachlor 84.4EC-D** is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

**Sharda Metolachlor 84.4EC-D** applied alone controls or partially controls the following weeds:

Barnyardgrass (watergrass)	Foxtail millet	Shattercane]
Bristly foxtail	Galinsoga	Signalgrass ( <i>Brachiaria</i> )
Carpetweed	Giant foxtail	Southwestern cupgrass
Common purslane]	Goosegrass	Tall waterhemp
Common waterhemp	Green foxtail	Texas panicum]
Crabgrass	Hairy nightshade	Volunteer sorghum]
Crowfootgrass	Pigweed	Wild proso millet*

Eastern black nightshade	Prairie cupgrass	Witchgrass
Eclipta	Red rice	Woolly cupgrass*
Fall panicum	Robust foxtails (purple, white)	Yellow foxtail
Florida beggarweed	Sandbur	Yellow nutsedge
Florida pusley	Seedling johnsongrass	

]Partial control. Refer to the **product information** section. Weed control is erratic due partially to variable weather conditions.

\*For control of these weeds in corn only, refer to the **Corn - Woolly Cupgrass and Wild Proso Millet Control Program** section of this label. **Florida Beggarweed**: Apply a minimum of 2 pints/acre pre-emergence for partial control.

**Texas panicum**: Apply a minimum of 2 pints/acre using a center pivot irrigation system.

#### To improve weed control:

1. Till moist soil thoroughly to destroy germinating and emerged weeds. If **Sharda Metolachlor 84.4EC-D** is applied Pre-Plant incorporated, tillage may be used to incorporate **Sharda Metolachlor 84.4EC-D** if uniform 2-inch incorporation is achieved as specified in **Application Procedures**.
2. Plant crop into moist soil immediately after tillage. If **Sharda Metolachlor 84.4EC-D** is to be used pre-emergence, apply at planting or immediately after planting.
3. Irrigate  $\frac{1}{2}$  - 1 inch of water with a sprinkler system, if available, within 2 days of application. Irrigate with  $\frac{1}{2}$  inch water volume on coarse-textured soils, and 1 inch on fine-textured soils. Refer to the section on **Center Pivot Irrigation Application** for instructions with this application method.
4. If irrigation is impossible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, perform a shallow cultivation as soon as weeds emerge.

To improve weed control in corn, use 2.0 - 2.67 pts./A or the pre-plant surface-applied rates for **Sharda Metolachlor 84.4EC-D** alone or in tank mixture, if allowed, when making pre-plant incorporated or pre-emergence applications.

#### Rotational Crops:

##### Sharda Metolachlor 84.4EC-D Alone:

If a crop treated with **Sharda Metolachlor 84.4EC-D** alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of this product. If the original application was banded and the second crop is planted in the untreated row middles, make a second banded treatment.

Crop	Rotation Interval (Months)
Alfalfa	4 Months
Barley, oats, rye, wheat	4 $\frac{1}{2}$ Months
Clover	9 Months
Tomatoes	6 Months
Any crop on this label plus root crops, tobacco, barley, buckwheat, milo, rice, cabbage, peppers, stone fruits, or tree nuts	Spring following treatment
All other crops	12 Months

Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, or peppers, stone fruits, or tree nuts may be planted in the spring.

#### Restrictions:

- Do not make a second broadcast application of **Sharda Metolachlor 84.4EC-D**.

**Sharda Metolachlor 84.4EC-D Tank Mixtures:** For **Rotational Crops** restrictions for **Sharda Metolachlor 84.4EC-D** used in tank mixtures, refer to the statements/restrictions above for **Sharda Metolachlor 84.4EC-D** and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

#### CORN (Field, Sweet, and Pop)

##### Sharda Metolachlor 84.4EC-D ALONE

Make either pre-plant surface, pre-plant incorporated, pre-emergence, or lay-by applications using the rates specified.

##### Pre-Plant Surface-Applied Application:

Refer to instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**.

**Fall Application (Apply after September 30 in MN, ND, SD, WI and north of Route 30 in IA; Apply after October 15 north of Route 91 in NE and south of Route 30 in IA; Apply after October 31 north of Route 136 in IL):** In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, apply 1.67 - 2.0 pts./A on *medium-textured* and 2.0 pts./A on *fine-textured soils*. A fall and/or spring tillage operation may precede the application. Minimize furrow and ridge formation in the tillage operations.



**Restrictions:**

- If a spring application is made, the sum total rate of fall and spring applications must not exceed the maximum total rate for corn.
- Do not apply to frozen ground.
- A fall and/or spring tillage may follow application, but do not exceed an incorporation depth greater than 2 - 3 inches.

Use of **Sharda Metolachlor 84.4EC-D** on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY:

- Apply 2/3 the specified labeled rate of **Sharda Metolachlor 84.4EC-D** (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30 - 45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split application or single treatment.
- Apply 1.33 pts./A on coarse soils not more than 2 weeks prior to planting.

On medium- and fine-textured soils with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, pre-plant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., AAtrex, Beacon®, Bicep®, Exceed®, Accent®, Banvel, Basagran®, bromoxynil (Brominal® or Butril®), or 2,4-D. Observe all directions for use, restrictions, precautions, and limitations on the post-emergent herbicide label.

**Restriction:**

- If the post-emergence treatment includes an herbicide used pre-plant surface-applied, do not exceed the total maximum specified rate for corn on a given soil texture.

**Pre-Plant Incorporated or Pre-Emergence Applications:**

Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**.

**Coarse soils:** Apply 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater.

**Medium soils:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Fine soils:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

**Lay-by Applications:**

To extend the duration of weed control in corn, apply the maximum rate of 2.0 pts. per acre **Sharda Metolachlor 84.4EC-D** after corn emerges until the corn reaches 40 inches tall, following any pre-plant surface-applied, pre-plant incorporated, or pre-emergence herbicide application, including **Sharda Metolachlor 84.4EC-D**.

For best results, apply to soil free of emerged weeds and directed towards the base of corn plants in excess of 5 inches tall. The total **Sharda Metolachlor 84.4EC-D** rate applied on corn during any one crop year must not exceed 4 pts./A, depending on soil texture.

**Corn Restrictions:**

- Do not graze or feed forage from treated areas for 30 days following application.

**Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta - Partial Control:**

Apply 2.0 - 2.5 pts./A of **Sharda Metolachlor 84.4EC-D** as a single application, or apply 1.0 - 1.33 pts./A pre-plant incorporated followed by 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** pre-emergence. Make pre-emergence application during or after planting, but before weeds and corn emerge. Apply the 1.33 pts./A rate of **Sharda Metolachlor 84.4EC-D** when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. Make a shallow cultivation to control any late emerging weeds. Do not apply more than a total of 2.55 pts./A **Sharda Metolachlor 84.4EC-D**.

**Woolly Cupgrass and Wild Proso Millet Control:**

**Medium soils:** Apply 1.67 pts./A **Sharda Metolachlor 84.4EC-D** early pre-plant, pre-plant incorporated, or pre-emergence.

**Fine soils:** Apply 2.0 pts./A up to the maximum specified label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5 - 7 days

Apply a post-emergence tank mix of 0.38 oz./A Beacon or 1 packet per 4 acres Exceed plus Accent SP at 0.33 oz./A plus 1 qt. of crop oil concentrate plus 1 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2-3 inches tall and the corn is at least 4 inches tall. Cultivate 14-21 days after the post-emergence application.

**Precautions:**

If annual weeds escape following a pre-plant surface, pre-plant incorporated, or pre-emergence treatment of **Sharda Metolachlor 84.4EC-D**, follow with a post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AAtrex, Beacon, Bicep, Exceed®, Accent, Banvel, Basagran, Brominal, Butril®, or 2,4-D.

**Restrictions:**

- Do not apply more than the specified labeled rate for a given soil texture per year, either as a single or split treatment.
- Do not use **Sharda Metolachlor 84.4EC-D** on peat or muck soils.
- If the post-emergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn on a given soil texture.
- Do not exceed 1.2 lbs. a.i./A of AAtrex in tank-mix combination with Brominal or Butril post-emergence.
- Refer to the AAtrex, Brominal, and Butril labels for specific rates and precautions.

In corn, **Sharda Metolachlor 84.4EC-D** may be used up to 2.75 pts./A either pre-plant surface, pre-plant incorporated, or pre-emergence treatment on soils having an organic matter content between 6%-20% or up to 2.0 pts./A on any soil for extended residual control and where severe stands of problem weeds are expected.

Brominal and Butril may be applied post-emergence alone or in tank-mix combination with AAtrex. Refer to the AAtrex, Brominal, or Butril labels for specific rates and precautions.

**Sharda Metolachlor 84.4EC-D Combinations for Corn**

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Sharda Metolachlor 84.4EC-D** in any tank mixture for corn (except **Sharda Metolachlor 84.4EC-D** + AAtrex post-emergence and **Sharda Metolachlor 84.4EC-D** + Banvel post-emergence) may be applied in water or fluid fertilizer. Use only water in the **Sharda Metolachlor 84.4EC-D** + AAtrex or the **Sharda Metolachlor 84.4EC-D** + Banvel post-emergence tank mixes.

**Restriction:**

- Do not graze or feed forage from treated areas for 30 days following application.

**FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE):**

All the restrictions and rate limitations on the AAtrex label must be followed if more restrictive/protective than those on this label. In addition, if AAtrex is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. Refer to the AAtrex label for weeds controlled at the reduced rates.

**Sharda Metolachlor 84.4EC-D Tank Mixtures for Corn - Additional Weeds Controlled and Special Instructions**

Tank Mix: <b>Sharda Metolachlor 84.4EC-D</b> +	Weeds Controlled	Weeds Partially Controlled
<b>AAtrex and/or Princep (Pre-Plant Surface, PPI, PRE)</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Ragweed, Smartweed, Velvetleaf	
<b>AAtrex (Post)</b>	<b>Controls:</b> Kochia, Lambsquarters, Mustard, Prickly sida, Ragweed, Smartweed, Velvetleaf <b>Partially controls:</b> Cocklebur, Jimsonweed, Morningglory	
<b>Banvel (Field Corn)</b>	<b>Controls:</b> Lambsquarters, Ragweed, Smartweed <b>Partially controls:</b> Cocklebur, Jimsonweed, Morningglory, Velvetleaf	
<b>AAtrex + Lorox</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Pigweed, Ragweed, Smartweed, Velvetleaf	
<b>AAtrex or Princep + Prowl</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Pigweed, Ragweed, Smartweed, Velvetleaf	
<b>Marksman</b>	<b>Controls:</b> Cocklebur, Common purslane, Hairy nightshade, Jimsonweed, Kochia, Lambsquarters, Morningglory, Mustard, Pigweed, Prickly sida, Ragweed, Smartweed, Velvetleaf	
<b>Broadstrike® + Sharda Metolachlor 84.4EC-D</b>	<b>Controls:</b> Common purslane, Hairy nightshade, Kochia, Lambsquarters, Mustard, Pigweed, Prickly sida, Smartweed, Velvetleaf <b>Controls or Partially controls:</b> Cocklebur, Jimsonweed, Morningglory, Ragweed depending on ratio of products used and/or weed population.	

**MIXING INSTRUCTIONS****Special Mixing Instructions for Sharda Metolachlor 84.4EC-D + AAtrex or Princep and Prowl:**

- Although a single formulation for AAtrex or Princep is listed in the rate tables, other formulations may be substituted, using the following formula: 1 lb. of AAtrex Nine-O® or Princep Caliber 90® = 1.8 pts. of AAtrex 4L or Princep 4L.
- Fill the spray tank ¼ full with water or fluid fertilizer and start agitation.
- Add a compatibility agent at 4 pts./100 gals. spray mixture, such as Unite or X-77.
- Add the AAtrex or Princep and allow it to become dispersed.
- Add **Sharda Metolachlor 84.4EC-D** and Prowl 4E.
- Add the rest of the water.

**Additional AAtrex Instructions:**

- Although directions specify AAtrex formulations in tank mixture with **Sharda Metolachlor 84.4EC-D**, other brands of atrazine may be used. Follow the rates, specifications, and limitations on the atrazine label.

- See additional mixing instructions on the AAtrex label.
- Refer to the **Sharda Metolachlor 84.4EC-D Combinations for Corn - Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems** sections for specific directions for 2,4-D or banvel burndown combinations in Minimum-Tillage and No-Tillage systems.

Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

**Lorox Instructions:** Other formulations of Lorox can be used: 1 lb. of Lorox DF = 1 pt. of Lorox L.

In minimum-tillage and no-tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.

**Sharda Metolachlor 84.4EC-D** in any tank mixture for corn may be applied in water or fluid fertilizer, except as follows:

**Corn Restrictions:**

- For all applications to corn, do not graze or feed forage from treated areas for 30 days following application.
- When applying **Sharda Metolachlor 84.4EC-D** in tank mixture with AAtrex, do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year.

Refer to **Corn (All Types) - Sharda Metolachlor 84.4EC-D Alone**, for sequential post-emergence treatments if escape weeds develop.

In corn, **Sharda Metolachlor 84.4EC-D** may be used up to 2.0 pts./A in combinations on any soil for extended residual control and where severe stands of problem weeds are expected.

**Tank Mixture with AAtrex or Princep, or AAtrex + Princep - Pre-Plant Surface, Pre-Plant Incorporated, or Pre-Emergence**

In addition to the weeds controlled by **Sharda Metolachlor 84.4EC-D** alone, **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, applied pre-plant surface, pre-plant incorporated, or pre-emergence, also controls the following weeds:

Browntop Panicum	Hairy Nightshade	Ragweed
Cocklebur	Lambsquarters	Smartweed
Common Purslane	Morningglory	Velvetleaf

Apply **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep either pre-plant surface, pre-plant incorporated, or pre-emergence.

**Pre-Plant Surface-Applied:** Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions** and under application instructions for **Sharda Metolachlor 84.4EC-D** alone on corn. Apply **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep on medium soils (1.67 pts./A of **Sharda Metolachlor 84.4EC-D** + 3.2 - 4 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) and on fine soils (1.67 - 2.0 pts./A of **Sharda Metolachlor 84.4EC-D** + 4 - 5 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **Sharda Metolachlor 84.4EC-D Alone - Pre-Plant Surface-Applied** section of the label for corn. On coarse soils, apply 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** and 3.2 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined.

**Pre-Plant Incorporated or Pre-Emergence:** Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**. Apply **Sharda Metolachlor 84.4EC-D** in combination with AAtrex and using the appropriate rates from the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep table.

**Restriction:**

- Do not apply more than the specified labeled rate for a given soil texture per year, either as a split or single treatment.

**Shattercane, Wild Proso Millet, Woolly Cupgrass and Eclipta - Partial Control**

For more consistent partial control of shattercane, wild proso millet, woolly cupgrass and eclipta where **Sharda Metolachlor 84.4EC-D** is applied in tank mixture or sequentially with other registered corn herbicides, apply 2.0 - 2.33 pts. per acre as a single application or make the following applications:

1. Apply 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** + 2 lbs. a.i./A of AAtrex or Princep pre-plant incorporated, followed by 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** pre-emergence. Make the pre-emergence application during or after planting, but before weeds and corn emerge.
2. Apply **Sharda Metolachlor 84.4EC-D** at 1.33 pts./A alone or in tank mix combination with up to 2 lbs. a.i./A of AAtrex or Princep, pre-plant incorporated. Do not exceed the total rate of triazine herbicide listed for corn grown on a given soil texture. Follow with a post-directed application of Evik® 80W at 2.5 lbs./A. Refer to the Evik 80W label for specific directions for the post-directed application.
3. Apply Eradicane® or Sutan® (or equivalent EPTC or butylate formulations) at labeled rates pre-plant incorporated, followed by a pre-emergence application of **Sharda Metolachlor 84.4EC-D** at 1.0 - 1.33 pts./A. Do not use Eradicane or Sutan on soils where

rapid degradation has been shown to occur. Make the pre-emergence application during or after planting, but before weeds and corn emerge.

When following the application regimes in numbers 1-3 above, make a shallow cultivation after the pre-emergence or post-emergence application to control any late emerging shattercane or wild proso millet plants.

**Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)**

**Do not use in muck or peat (soils with greater than 20% organic matter).**

BROADCAST RATES PER ACRE				
SOIL TEXTURE	Less than 3% Organic matter		Greater than 3% Organic matter	
	Tank Mix: Sharda Metolachlor 84.4EC-D +			
	AAtrex Nine O or Princep Caliber 90*	AAtrex Nine O** or Princep Caliber 90**	AAtrex Nine O or Princep Caliber 90*	AAtrex Nine O** or Princep Caliber 90**
Coarse	0.85 - 1.0 pts. + 1.1-2.2 lbs.	0.85 - 1.0 pts. + 0.6 - 1.1 lbs. + 0.6 - 1.1 lbs.	1.0 pts. + 1.3 - 2.2 lbs.	1.0 pts. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.
Medium	1.0 - 1.33 pts. + 1.3-2.2 lbs.	1.0 - 1.33 pts. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.	1.33 pts. + 1.8 - 2.2 lbs.	1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.
Fine	1.33 pts. + 1.8 - 2.2 lbs.	1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.	1.33 - 1.67 pts. + 1.8 - 2.2 lbs.***	1.33 - 1.67 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.

\*Use Princep instead of AAtrex when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, use up to 2.33 pts./A Sharda Metolachlor 84.4EC-D in tank mix combination with 2.2 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L. Refer to the AAtrex label for weeds controlled at this reduced rate.

\*\*When using the tank mixture of Sharda Metolachlor 84.4EC-D + AAtrex Nine-O + Princep Caliber 90, use equal rates of each as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given in the Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types) table.

(Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex + 0.8 lb. of Princep, respectively.)

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L, or the same total amount of AAtrex + Princep with 1.33 - 1.67 pts./A of Sharda Metolachlor 84.4EC-D.

**Tank Mixture with AAtrex - Post-Emergence**

Weeds Controlled			Weeds Partially Controlled		
Barnyardgrass (watergrass)	Yellow foxtail	Prickly sida	Cocklebur	Morningglory	Yellow Nutsedge
Crabgrass	Jimsonweed	Purslane			
Crowfootgrass	Kochia	Ragweed			
Fall panicum	Lambsquarters	Smartweed			
Giant foxtail	Mustard	Velvetleaf			
Green foxtail	Pigweed				

**Coarse soils:** Apply 1.0 pts./A of Sharda Metolachlor 84.4EC-D + 1.3 lbs./A of AAtrex Nine-O\*.

**Medium soils:** 1.33 pts./A of Sharda Metolachlor 84.4EC-D + 1.8 lbs./A of AAtrex Nine-O.

**Fine soils:** 1.33 - 1.67 pts./A of Sharda Metolachlor 84.4EC-D + 1.8 - 2.2 lbs./A\*\* of AAtrex Nine-O. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5" tall. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

\*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.8 pts. of AAtrex 4L.

\*\*For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 2.2 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, with 1.33 - 1.67 pts./A of Sharda Metolachlor 84.4EC-D.

**Lay-by Applications:**

Apply to corn plants less than 12" tall. Direct applications to corn in >5" tall to the base of the corn plants. Apply over the top to corn plants <5" tall. Corn leaf burn can occur, but won't impact growth or yield.

Tank mixtures of **Sharda Metolachlor 84.4EC-D** + AAtrex can be applied following application of any registered pre-plant surface applied, pre-plant incorporated, or pre-emergence corn herbicide, including **Sharda Metolachlor 84.4EC-D** + AAtrex.

**Restrictions:**

- Do not exceed 4 pints of **Sharda Metolachlor 84.4EC-D**.
- Do not exceed 2.5 lbs. a.i./A AAtrex during any one crop year.
- Refer to the AAtrex label for geographic, soil-texture, and rotational restrictions.

**Tank Mixture with Banvel**

**Pre-Emergence:** Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI. In addition to the weeds controlled by **Sharda Metolachlor 84.4EC-D** alone, **Sharda Metolachlor 84.4EC-D** + Banvel, applied pre-emergence controls lambsquarters, ragweed, smartweed, and partially controls cocklebur, jimsonweed, morningglory, and velvetleaf.

Apply **Sharda Metolachlor 84.4EC-D** + Banvel Pre-Emergence.

**Medium soils:** Broadcast 1 pt./A of Banvel with 1.33 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Fine soils:** 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** tank mixture to the soil surface at planting or after planting, but before corn emerges. Plant corn at least 1½" deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device.

**Coarse soils:** Do not apply.

**Restrictions:**

- Do not allow **Sharda Metolachlor 84.4EC-D** to drift to non-target plants such as soybeans during application.
- Do not apply with aircraft.
- If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than ½" deep.
- Do not incorporate before corn emerges.

**Post-Emergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV):**

Apply 1.0 - 1.5 pts. of **Sharda Metolachlor 84.4EC-D** + 0.5 - 1 pt./A of Banvel by ground equipment when pigweed plants are <3" tall and before corn >5" tall in a minimum of 20 gals. Of spray per acre. Use the lower rate within the specified rate range on coarse-textured and low organic matter soils. Use the higher rate within the specified rate range on fine textured and high organic matter soils.

Banvel SGF and Clarity® may be used at equivalent lbs. of active ingredient per acre.

**Restrictions:**

- Do not allow **Sharda Metolachlor 84.4EC-D** to drift to non-target plants such as soybeans during application.
- Do not apply with aircraft.

**Tank Mixture with AAtrex and Lorox to Control of Lambsquarters and Pigweed**

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA, and WV, apply **Sharda Metolachlor 84.4EC-D** pre-emergence in tank mix combination with AAtrex + Lorox. Apply **Sharda Metolachlor 84.4EC-D** and AAtrex according to the rates specified in the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, **Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)** table and Lorox according to the following rates:

**SOIL TEXTURE & BROADCAST RATE PER ACRE:**

Sandy loam (1 - 3% organic matter): 0.67 lb./A Lorox

Sandy loam (3 - 6% organic matter): 1.0 lb./A Lorox

Medium- and fine-textured soils (1-6% organic matter): 1.0 lb./A Lorox

Observe all directions for use, restrictions, precautions, and limitations on the **Sharda Metolachlor 84.4EC-D**, AAtrex, and Lorox labels when applying these products in tank mix combinations.

**Tank Mixture with AAtrex or Princep + Prowl for Prolonged Control of Lambsquarters and Pigweed in Field Corn Only (Northeast U.S., including MI, IN, KY, and States East of These)**

For prolonged control of lambsquarters, pigweed, and other annual broadleaf and grass weeds, apply **Sharda Metolachlor 84.4EC-D** in tank mix combination with AAtrex\* or Princep + Prowl 4E after planting but before corn or weeds emerge. Apply using ground equipment in a minimum of 10 gals. water or 20 gals. liquid fertilizer. Apply by air in a minimum of 5 gals. water. Refer to the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, **Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)** table for rates of **Sharda Metolachlor 84.4EC-D**, AAtrex, or Princep to be applied. Apply Prowl 4E according to the following rates in the **Prowl 4E - Broadcast Rates Per Acre** table.

**Restriction:**

- Do not apply **Sharda Metolachlor 84.4EC-D** in tank mix combination with AAtrex 80W + Prowl, as this combination is incompatible. Other AAtrex formulations may be used.

**Prowl 4E - Broadcast Rates Per Acre**

Percent Organic Matter in Soil	Coarse Soil	Medium Soil	Fine Soil
<1.5%	1.5 - 2.0 pts.	2.0 pts.	2.0 pts.
1.5 - 3%	2.0 pts.	3.0 pts.	3.0 pts.
>3%	3.0 pts.	3.0 pts.	3.0 pts.

Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination. Refer to the Prowl 4E label for replanting instructions in the event of crop loss.

**Tank Mixture with AAtrex\* or Princep, AAtrex + Princep, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be added to a tank mix of **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep. The **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep portion of the tank mixture provides pre-emergence control of the weeds listed on this label in the tank mixture section for **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep - Pre-Plant Surface, Pre-Plant Incorporated, or Pre-Emergence.

**Application:** Apply before, during, or after planting, but before the corn emerges, at the rates specified below. Add Gramoxone Extra, Landmaster BW, or Roundup at the following broadcast rates:

**Gramoxone Extra:** 1.5 - 2.0, 2.0 - 2.5, or 2.5 - 3.0 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds greater than 6" tall.

**Restriction:**

- Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers because the activity of paraquat will be reduced.

**Landmaster BW:** 27 - 54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, rates for specific weeds, and other information concerning use.

**Roundup:** See the Roundup or Roundup RT label for weeds controlled, rates, and other use directions. Apply in 20 - 60 gals. of water or fluid fertilizer per acre with ground equipment.

**Coarse soils:** Apply 1.0 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.3 lbs. of AAtrex Nine-O\* or Princep Caliber 90\*, or with 0.7 lb. of AAtrex Nine-O\*\* + 0.7 lb. of Princep Caliber 90\*\*.

**Medium soils:** Apply 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.8 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 lb. of AAtrex Nine-O + 0.9 lb. of Princep Caliber 90.

**Fine soils\*\*\*:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.8-2.2 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 - 1.1 lbs. of AAtrex Nine-O + 0.9 - 1.1 lbs. of Princep Caliber 90.

\*Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected.

\*\*When using the tank mixture of **Sharda Metolachlor 84.4EC-D** + AAtrex Nine-O + Princep Caliber 90, use equal rates of AAtrex and Princep as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given.

(Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.8 lbs./A, use 0.6 lb. of AAtrex + 1.2 lbs. of Princep, respectively.)

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, or the same total amount of AAtrex + Princep, with 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, applying **Sharda Metolachlor 84.4EC-D** in combination with AAtrex will kill most emerged small annual weeds. Apply **Sharda Metolachlor 84.4EC-D** + AAtrex before, during, or after planting, but before corn emerges, according to the rates in the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types) table.

Where heavy crop residues exist, add 0.8 - 1.6 pts./A of an appropriately labeled 3.8 lbs. a.i./gal. 2,4-D amine (such as Weedar 64, Weedar 64A, DMA-4 Herbicide, or Formula 40) to the spray tank last and apply in a minimum of 25 gals. carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77 surfactant at 1.0 - 2.0 qts./100 gals. of diluted spray, or another

appropriate surfactant at its labeled rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds exceed 3" tall. If alfalfa is present, add Banvel to the spray mixture at 0.33 - 0.5 pt./A and apply before alfalfa exceeds 6" tall.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3" tall or when very dry conditions exist, add Gramoxone Extra at the rate of 1.67 pts./A in place of or in addition to 2,4-D, as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination.

#### **Tank Mixture with Marksman in Conservation Tillage - Field and Silage Corn**

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, **Sharda Metolachlor 84.4EC-D + Marksman** will kill most emerged small annual weeds. Apply **Sharda Metolachlor 84.4EC-D + Marksman** before, during, or after planting, but before corn emergence on medium and fine soils with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3" tall or when very dry conditions exist, add Gramoxone Extra at its standard rate. Apply **Sharda Metolachlor 84.4EC-D + Marksman** post-emergence to corn <3" tall and before weedy grasses exceed the 2-leaf stage.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds.

#### **Restriction:**

- Do not apply Gramoxone Extra in suspension-type liquid fertilizer or use on emerged corn. Refer to the Marksman label and follow all directions, limitations, restrictions, precautions, and instructions regarding application and use in corn.

#### **Tank Mixture with Broadstrike® + Sharda Metolachlor 84.4EC-D**

For pre-plant surface, pre-plant incorporated, or pre-emergence application where severe grass populations are expected on medium- or fine-textured soils with relatively high organic matter content, Broadstrike + **Sharda Metolachlor 84.4EC-D** may be spiked with **Sharda Metolachlor 84.4EC-D** for optimum performance. Refer to the Broadstrike + **Sharda Metolachlor 84.4EC-D** label for its use rate and the amount of metolachlor active ingredient it contains. **Sharda Metolachlor 84.4EC-D** may be added up to, but not to exceed, the maximum alone **Sharda Metolachlor 84.4EC-D** label rate for the soil classification. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

### **STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Keep from freezing: DO NOT store below 32°F.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA region office for guidance.

#### **Container Handling:**

**NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or

application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.**

Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

Banvel, Basagran, Clearfield, Counter, Marksman, Outlook, Prowl, Poast, Pursuit, Scepter, Squadron, Storm, Thimet, Tri-4, and Ultra Blazer are registered trademarks of BASF.

Balan, FirstRate, Hornet, Python, Sonolan, and Lorsban are trademarks of Dow Agro Sciences.

Accent, Basis, Classic, Harmony GT Staple, Synchrony, Lexone, and Canopy XL are trademarks of E.I. duPont de Nemours & Co., Inc.

AAtrex, Bravo, Bravo S, Dual, Flexstar, Reflex, Vernam, Gramoxone Extra, Spirit, and Starfire are trademarks of Syngenta Crop Protection.

Permit, Lasso, Roundup Ready, and Roundup Ultra are trademarks of Monsanto Agricultural Company.

Buctril and Whip are trademarks of Aventis Crop Science.

Bugle is a trademark of Hoechst Schering Agrevo GmbH.

Cobra, Prism, Select, and Orthene are trademarks of Valent Chemical Co.

Sencor is a trademark of Bayer Corporation

Solubor is a trademark of U.S. Borax & Chemical Corp.

Authority and Command is a trademark of FMC Corporation.

Pioneer is a registered trademark of Agco Corporation.



# PROCESSING REQUEST

Reg # 83529-LT

Decision # 514730

Description: New Product

Electronic Label & Letter  
(see PPLS):

OR

Non Electronic  
Label & Letter  
(Scanning required):

☒ Dated: 7/19/16

☐ Dated:

\*\*\*Only one label type should be selected\*\*\*

Other Materials Sent (see jacket):

☒ New CSF(s) Dated: Basic - 2/29/16

☐ Other:

File this coversheet and attached materials in the jacket. It must be well organized and clipped together, NOT STAPLED. Then give the jacket with the coversheet and materials to staff in the Information Services Center (ISC) (Room S-4900). If a jacket is full or only available as an image, please file materials in a new jacket and bring it down to the (ISC). For further information please call 703-605-0716.

Reviewer: Karen Samek

Division: RD/HB

Phone: (703) 347-8825

Date: 7/20/16



## U.S. ENVIRONMENTAL PROTECTION AGENCY

Office of Pesticide Programs  
Registration Division (7505P)  
1200 Pennsylvania Ave., N.W.  
Washington, D.C. 20460

EPA Reg. Number:

83529-57

Date of Issuance:

07/19/2016

## NOTICE OF PESTICIDE:

☒ Registration  
☐ Reregistration  
(under FIFRA, as amended)

Term of Issuance:

Conditional

Name of Pesticide Product:

Sharda Metolachlor 84.4 EC-D

## Name and Address of Registrant (include ZIP Code):

Ms. Cheryl Wagner  
Sharda USA LLC  
c/o Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

Note: Changes in labeling differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby registered under the Federal Insecticide, Fungicide and Rodenticide Act.

Registration is in no way to be construed as an endorsement or recommendation of this product by the Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(A). You must comply with the following conditions:

1. Submit and/or cite all data required for registration/reregistration/registration review of your product under FIFRA when the Agency requires all registrants of similar products to submit such data.

Signature of Approving Official:

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Date:

07/19/2016

2. You are required to comply with the data requirements described in the DCI identified below:

a. Metolachlor GDCI-108801-1506

You must comply with all of the data requirements within the established deadlines. If you have questions about the Generic DCI listed above, you may contact the Chemical Review Manager in the Pesticide Reevaluation Division: <http://iaspub.epa.gov/apex/pesticides/f?p=chemicalsearch:1>

3. Make the following label changes before you release the product for shipment:

- Revise the EPA Registration Number to read, "EPA Reg. No. 83529-57."

4. Submit one copy of the final printed label for the record before you release the product for shipment.

Should you wish to add/retain a reference to the company's website on your label, then please be aware that the website becomes labeling under the Federal Insecticide Fungicide and Rodenticide Act and is subject to review by the Agency. If the website is false or misleading, the product would be misbranded and unlawful to sell or distribute under FIFRA section 12(a)(1)(E). 40 CFR 156.10(a)(5) list examples of statements EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the Agency find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance.

If you fail to satisfy these data requirements, EPA will consider appropriate regulatory action including, among other things, cancellation under FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records. Please also note that the record for this product currently contains the following CSFs:

- Basic CSF dated 02/29/2016

If you have any questions, please contact Karen Samek by phone at (703) 347-8825, or via email at [samek.karen@epa.gov](mailto:samek.karen@epa.gov).

Enclosure

**GROUP 15 HERBICIDE**

# Sharda Metolachlor 84.4EC-D

Herbicide for use in corn

<b>ACTIVE INGREDIENT:</b>	<b>WT. BY %</b>
Metolachlor: 2-chloro-N-(2-ethyl-6-methylphenyl)-N-(2-methoxy-1-methylethyl) acetamide.....	84.4%
<b>OTHER INGREDIENTS:</b> .....	<u>15.6%</u>
<b>TOTAL:</b> .....	<b>100.00%</b>

Contains 7.8 lbs. of active ingredient per gallon.

## KEEP OUT OF REACH OF CHILDREN CAUTION/PRECAUCION

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand this label, find someone to explain it to you in detail.)

FIRST AID	
<b>IF INHALED:</b>	<ul style="list-style-type: none"><li>• Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF ON SKIN OR CLOTHING:</b>	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
<b>IF IN EYES:</b>	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li><li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li><li>• Call a poison control center or doctor for further treatment advice.</li></ul>
<b>IF SWALLOWED:</b>	<ul style="list-style-type: none"><li>• Call a poison control center or doctor immediately for treatment advice.</li><li>• Have person sip a glass of water if able to swallow.</li><li>• Do not induce vomiting unless told to by a poison control center or doctor.</li><li>• Do not give anything by mouth to an unconscious person.</li></ul>

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency involving this product, call CHEMTREC at **1-800-424-9300**.

**Physical and Chemical Hazard: Do not mix or allow coming in contact with oxidizing agents.**  
**Hazardous chemical reaction may occur.**

[See inside booklet for complete [additional] [First Aid,] Precautionary Statements, and Directions For Use.]

EPA Reg. No. 83529-XX

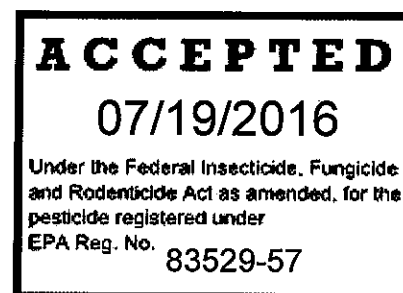
EPA Est. No. XXXXX-XX-XXX

Manufactured for:

**Sharda USA LLC** 

7217 Lancaster Pike, Suite A  
Hockessin, Delaware 19707

Net Contents: \_\_\_\_\_



**PRECAUTIONARY STATEMENTS**  
**HAZARDS TO HUMANS and Domestic Animals**  
**CAUTION**

Harmful if swallowed, inhaled, or absorbed through skin. Causes eye irritation. Avoid breathing vapor or spray mist. Avoid contact with skin, eyes or clothing. This product may cause skin sensitization reactions in some people.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

Some materials that are chemical-resistant to this product are listed below.

**Applicators and other handlers must wear:**

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves, such as barrier laminate, butyl rubber  $\geq 14$  mils, neoprene rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils, polyethylene, PVC  $\geq 14$  mils, or Viton  $\geq 14$  mils
- Chemical-resistant footwear plus socks
- Chemical-resistant headgear for overhead exposure
- Chemical-resistant apron when cleaning equipment, mixing, or loading

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**ENGINEERING CONTROL STATEMENTS**

Mixers and loaders supporting aerial applications are required to use closed systems. The closed system must be used in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides (40 CFR 170.240(d)(4)). When using this closed system, the mixers and loaders PPE requirements may be reduced or modified as specified in the WPS.

When handlers used closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**USER SAFETY RECOMMENDATIONS**

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENVIRONMENTAL HAZARDS**

Do not apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high water mark. DO NOT contaminate water when disposing of equipment washwaters or rinsate.

**Ground Water Advisory**

This chemical has properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

**Surface Water Advisory**

Metolachlor can contaminate surface water through ground spray drift. Under some conditions, metolachlor may also have a high potential for runoff into surface water (primarily via dissolution in runoff water), for several months post application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas over-laying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water.

**Mixing/Loading Instructions**

DO NOT allow **Sharda Metolachlor 84.4EC-D** to back-siphon into wells, spill, or improper disposal of excess pesticide, spray mixtures, or rinsates.

Check valves or anti-siphoning devices must be used on all mixing and/or irrigation equipment.

Do not mix or load **Sharda Metolachlor 84.4EC-D** within 50 feet of perennial or intermittent streams and rivers, natural or impounded lakes, and reservoirs. Do not mix or load **Sharda Metolachlor 84.4EC-D** within 50 feet of all wells, including abandoned wells, drainage wells, and sink holes. Operations that involve mixing, loading, rinsing, or washing of **Sharda Metolachlor 84.4EC-D** into or from pesticide handling or application equipment or containers within 50 feet of any well are prohibited unless conducted on an impervious pad constructed to withstand the weight of the heaviest load that may be positioned on or moved across the pad. Such a pad shall be designed and maintained to contain any product spills or equipment leaks, container or equipment rinse or wash-water, and rain water that may fall on the pad. Surface water shall not be allowed to either flow over or from the pad, which means that the pad must be self-contained. The pad must be sloped to facilitate material removal. An unroofed pad shall be of sufficient capacity to contain at a minimum 110% of the capacity of the largest

pesticide container or application equipment on the pad. A pad that is covered by a roof of sufficient size to completely exclude precipitation from contact with the pad shall have a minimum containment capacity of 100% of the capacity of the largest pesticide container or application equipment on the pad. Containment capacities as described above shall be maintained at all times. The above-specified minimum containment capacities do not apply to vehicles when delivering pesticide shipments to the mixing/loading site.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation. This labeling must be in the possession of the user at the time of pesticide application.

### AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

**DO NOT** enter or allow worker entry into treated areas during the restricted-entry interval (REI) of **12 hours**.

**Exception:** If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water, is:

- Coveralls over short-sleeved shirt and short pants
- Chemical-resistant gloves such as barrier laminate, butyl rubber  $\geq 14$  mils, or nitrile rubber  $\geq 14$  mils, or neoprene rubber  $\geq 14$  mils, polyethylene, PVC  $\geq 14$  mils, or Viton  $\geq 14$  mils
- Shoes plus socks

Failure to follow the Directions for Use, Restrictions, and Precautions in this label can result in poor weed control, crop injury, and/or illegal residues.

Not for sale, use, or distribution in Nassau or Suffolk counties in New York.

Do not apply **Sharda Metolachlor 84.4EC-D** in windy conditions. Do not allow spray to overlap as crop injury can occur.

### PRODUCT INFORMATION

Observe all precautions and limitations on the labels of each state-registered product used in tank mixtures. Tank mixtures are permitted only in states where the tank mix partner product is registered.

**FOR ALL TANK MIXTURES:** It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Sharda Metolachlor 84.4EC-D** is a selective herbicide that can be used pre-plant surface-applied, pre-plant incorporated, or pre-emergence treatment in water or liquid fertilizer to control listed annual grasses and broadleaf weeds in all types of corn. Post-emergence applications of **Sharda Metolachlor 84.4EC-D** can be made on corn.

### RESISTANCE MANAGEMENT

**Sharda Metolachlor 84.4EC-D** is a Group 15 herbicide. Weed populations may contain or develop plants that become naturally resistant to metolachlor and/or other Group 15 herbicide products. If Group 15 herbicides are used repeatedly in the same field or in successive years as the primary method of control of targeted species, weed species that have developed resistance to Group 15 herbicides can dominate the weed population, resulting in partial or total loss of weed control.

#### To avoid herbicide resistance:

- Do not use **Sharda Metolachlor 84.4EC-D** consecutively with other Group 15 herbicides that have similar modes of action on targeted weed.
- Use tank mixtures and premixes from different Groups provided that the products involved are registered for the same use, have different modes of action, and/or are effective at the tank mix or prepack rate on the weed(s) concerned.
- Utilize a comprehensive Integrated Pest Management (IPM) program.
- Monitor treated areas for loss of field efficacy.

- Contact your local state extension specialist, certified crop advisors, and/or manufacturer for herbicide resistance management and/or integrated weed management recommendations for specific crops and resistant weed biotypes.

## APPLICATION INSTRUCTIONS

### SOIL TEXTURES AND APPLICATION RATES

Where rates are based on soil texture, classes are categorized as follows:

Coarse-Textured	Medium-Textured	Fine-Textured
Sand, Loamy sand, Sandy loam	Loam, Silt loam, Silt	Sandy clay loam, Silty clay loam, Clay loam, Sandy Clay, Silty loam, Silty Clay, Clay

**Coarse-textured/low organic matter soils:** Use the lower rate within the specified rate range.

**Fine-textured/high organic matter soils:** Use the higher rate within the specified rate range.

### APPLICATION METHODS

Apply **Sharda Metolachlor 84.4EC-D** alone or in combination with specified tank mix partners following pre-plant incorporated herbicides when used according to label instructions and such use is not prohibited on the respective labels.

Thoroughly clean sprayer/application device before applying **Sharda Metolachlor 84.4EC-D**. Dispose of cleaning solution in a responsible manner. Do not use a sprayer or applicator contaminated with any other materials to avoid crop damage and/or clogging of the application device.

### MIXING INSTRUCTIONS

Mix **Sharda Metolachlor 84.4EC-D** alone with water or liquid fertilizer and apply as a spray:

- Fill the spray tank  $\frac{1}{2}$  -  $\frac{3}{4}$  full of water or liquid fertilizer.
- Add the specified amount of **Sharda Metolachlor 84.4EC-D**.
- Add the remaining water or liquid fertilizer.
- Maintain sufficient agitation during mixing and application to maintain a uniform emulsion.

### TANK MIX APPLICATIONS

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

#### Tank Mixtures:

- Fill the spray tank  $\frac{1}{4}$  full with water, and begin agitation.
- Add 2,4-D, AAtrex®, Balan®, Banvel, Canopy®, Caparol 4L®, Command®, Cotoran®, Eptam®, Gemini®, Lexone®, Lorox®, Lorox Plus, Marksman®, MSMA, Preview®, Princep®, Prowl®, Pursuit®, AAtrex + Princep, Scepter®, Sencor®, Sonalan®, or Treflan®, ensuring products disperse.
- Add **Sharda Metolachlor 84.4EC-D**.
- Add Gramoxone® Extra, Landmaster® BW, or Roundup® if these products are being used.
- Add the rest of the water.

For tank mixtures with AAtrex, Banvel, Canopy, Caparol 4L, Command, Cotoran®, Eptam, Gemini, Lexone, Lorox, Lorox Plus, Marksman, Preview, Princep, Prowl®, Pursuit, AAtrex + Princep, Scepter, Sencor, Sonalan, or Treflan, liquid fertilizers can replace all or part of the water as carrier, except for AAtrex post-emergence and Banvel post-emergence tank mixes. For tank mixtures with AAtrex, refer to the AAtrex label for additional mixing instructions. For each mixture, check compatibility with liquid fertilizers before mixing in spray tank. For all tank mixtures, agitate during mixing and application to maintain a uniform suspension.

\*See **Special Mixing Instructions** for tank mixtures with Cotoran, and with AAtrex or Princep + Prowl under the appropriate tank mixture section.

### Compatibility Test

Because liquid fertilizers vary, even within the same analysis, always **check compatibility with herbicide(s) prior to use**. Serious compatibility issues are most likely to occur when mixing with complete suspension or liquid fertilizers. Commercial application equipment can improve compatibility. The following test assumes a spray volume of 25 gals./A. For other spray volumes, make appropriate changes in the ingredients. To check compatibility:

1. Add 1 pint of fertilizer to each of 2 one-quart jars with tight lids.
2. To **one** of the jars, add  $\frac{1}{4}$  tsp. (1.2 milliliters) of a compatibility agent approved for this use such as Compex® or Unite® (1/4 tsp. is equivalent to 2 pts./100 gals. spray). Shake/stir gently to mix.
3. To **both** jars, add the appropriate amount of herbicide(s).

If more than one herbicide is used, add them separately in the following order:

- Dry herbicides first, flowables next, and emulsifiable concentrates last.
- After each addition, shake or stir gently to thoroughly mix.

-The appropriate amount of herbicides for this test is:

**Dry Herbicides:** For each pound to be applied per acre, add 1.5 level teaspoons to each jar.

**Liquid Herbicides:** For each pint to be applied per acre, add 0.5 teaspoon or 2.5 milliliters to each jar.

**Note:** For **Sharda Metolachlor 84.4EC-D** tank mixtures with AAtrex + Princep, use  $\frac{1}{4}$  -  $\frac{1}{2}$  the amount of AAtrex specified and the remainder as Princep, depending on whether the 1:2 or 1:1 ratio of AAtrex to Princep is to be applied.

4. After adding all ingredients, put lids on and tighten, and invert each jar 10 times to mix.
5. Let the mixtures stand 15 minutes.
6. After 15 minutes, check jars for chemical separation, large flakes, precipitates, gels, heavy oily film on the jar, or other signs of incompatibility. Determine if a compatibility agent is needed in the spray mixture by comparing the 2 jars. If either mixture separates but can be remixed readily, the mixture can be sprayed as long as adequate agitation is maintained.

If the mixtures are incompatible, the following methods may improve compatibility:

- Slurry the dry herbicide(s) in water before adding, or
- Add  $\frac{1}{2}$  of the compatibility agent to the fertilizer, and the other  $\frac{1}{2}$  to the emulsifiable concentrate or flowable herbicide before adding to the mixture.

If incompatibility is still observed, do not use the mixture.

#### APPLICATION TIMING

**Sharda Metolachlor 84.4EC-D** alone or in some tank mixtures with other labeled herbicides may be applied for weed control in corn at various times. Refer to the **CORN** section of the label to determine if application timings listed below are specified.

##### Pre-Plant Surface Applications

**45 days before planting:** For minimum-tillage or no-tillage systems only, apply **Sharda Metolachlor 84.4EC-D** alone, or with **Sharda Metolachlor 84.4EC-D** tank mixtures.

**30-45 days before planting:** Make split applications, with  $\frac{2}{3}$  the specified broadcast rate for the crop and soil texture applied initially and the remaining  $\frac{1}{3}$  at planting.

**Less than 30 days before planting:** Make split applications or a single application.

Refer to individual crop to determine if early pre-plant surface application instructions are provided. If weeds are present at the time of treatment, apply in a tank mixture combination with a contact herbicide (for example, Gramoxone Extra or Roundup). Observe directions for use, precautions, and restrictions on the label of the contact herbicide. To the extent possible, do not move treated soil out of the row or move untreated soil to the surface during planting, or weed control will be diminished.

**Pre-Plant Incorporated:** Apply **Sharda Metolachlor 84.4EC-D** to the soil and incorporate into the top 2 inches of soil within 14 days before planting, using a finishing disk, harrow, rolling cultivator, or similar implement capable of providing uniform 2-inch incorporation. Use a pre-plant incorporated application if furrow irrigation is used or when a period of dry weather after application is expected. If crop will be planted on beds, apply and incorporate **Sharda Metolachlor 84.4EC-D** after bed formation, unless specified otherwise.

**Pre-Emergence:** Apply **Sharda Metolachlor 84.4EC-D** during planting (behind the planter) or after planting but before weeds or crops emerge.

**Post-Emergence:** One application of **Sharda Metolachlor 84.4EC-D** will provide pre-emergence control or partial control of annual grasses and broadleaf weeds listed in the "**Weeds Controlled**" section of this label. Application of this product alone will not control emerged weeds; **Sharda Metolachlor 84.4EC-D** must be applied to a weed-free surface, or in tank mixture with products that provide post-emergence weed control. If weeds are present at the time of application, tank-mix with a labeled post-emergence herbicide and observe all directions for use, precautions and restrictions on the label of the tank-mix partner. For additional post-emergence information follow the crop specific label requirements identified on this label.

#### SPECIAL APPLICATION PROCEDURES

**Fall Applications in the states of Iowa, Minnesota, North Dakota, South Dakota, Wisconsin, portions of Nebraska and Illinois (see directions for use for corn section for timing of application and other instructions):** Apply **Sharda Metolachlor 84.4EC-D** on medium- and fine-textured soils with more than 2.5% organic matter that will be planted to corn the following spring. The ground can be tilled before or after application.

##### Restrictions:

- DO NOT apply to frozen ground.
- DO NOT exceed 2-3-inch incorporation depth if soil is tilled after treatment.
- If a spring application is made, the total rate of the fall application and the spring application combined must not exceed the maximum total rate for the specific crop or illegal residues can result.



## Ground Application

Apply **Sharda Metolachlor 84.4EC-D** alone or in tank mixtures by ground equipment in a minimum of 10 gals. of spray mixture per acre unless otherwise specified. Use sprayers that provide accurate and uniform application. For **Sharda Metolachlor 84.4EC-D** tank mixtures with wettable powder or dry flowable formulations, screens and strainers must not be finer than 50-mesh. Rinse sprayer thoroughly with clean water immediately after use.

Calculate the amount of herbicide needed for band treatment by the formula:

$$\frac{\text{band width in inches}}{\text{row width in inches}} \times \text{broadcast rate per acre} = \text{amount needed per acre of field}$$

## Low Carrier Volumes: Broadcast Ground Application Only

Use sprayers, such as Ag-Chem RoGator®, Hagie, John Deere Hi-CycleT, Melroe Spra-Coupe, Tyler Patriot™, or Willmar Air Ride®, that provide accurate and uniform application. **Only water may be used as a carrier.** Screens in suction and in-line strainers must be 50-mesh. Manufacturers may require that tip screens as fine as 100-mesh be used with some nozzles. Use a pump with capacity to:

- maintain up to 35-40 psi at the nozzles
- provide sufficient agitation in tank to keep mixture in suspension.

Use a minimum of 5 gals. of spray mixture per acre. Maximum sprayer speed is 15 mph. Rinse sprayer thoroughly with clean water immediately after each use.

**Note:** Use low pressure nozzles to reduce drift and increase application accuracy. Exercise care when using automatic rate controlling devices to spray the material within the rated working pressure and flow ranges of the nozzles selected. Use nozzle screens used when specified by the manufacturer. Place nozzles on 20-inch centers, except flooding types which must be placed on 40-inch centers. When Flat Fan-type nozzles are used, use those with angles of 80° or 110°. Always read and follow the manufacturer's directions for optimum setup and performance of their nozzles or tips.

## AERIAL APPLICATION

Apply **Sharda Metolachlor 84.4EC-D** in water alone or in tank mixture with AAtrex, Lexone, Lorox, or Sencor in a minimum volume of 2 gals./A. Aerial applications of **Sharda Metolachlor 84.4EC-D** can also be made with Balan, Prowl, or Treflan. Do not apply under conditions where uniform coverage cannot be obtained, or when excessive spray drift may occur.

To avoid injury to sensitive crops from drift, aerial applications must adhere to the following **AERIAL USE**

### DIRECTIONS, RESTRICTIONS AND PRECAUTIONS:

- Nozzle height above the ground must be a maximum of 10 feet above the crop with low drift nozzles at a maximum pressure of 40 psi.
- Nozzles must be pointed toward the rear of the aircraft. The downward angle of the nozzle must not exceed 45 degrees.
- Nozzles and/or spray boom must not be located any closer to the end of the wing or rotor than ¾ the distance from the center of the aircraft.
- Use a maximum spray pressure of 40 psi.
- Establish a buffer zone between the area to be sprayed and sensitive crops.
- DO NOT spray when wind speed exceeds 10 mph.
- Do not apply to humans or animals.
- Do not allow flagmen and loaders to inhale spray mist or have prolonged skin contact.

To avoid injury to sensitive crops:

- Apply **Sharda Metolachlor 84.4EC-D** alone or in tank mix with AAtrex a minimum of 400 feet from sensitive plants.
- Apply **Sharda Metolachlor 84.4EC-D** + Lexone, Lorox, or Sencor a minimum of 300 feet upwind from sensitive plants.

The applicator is responsible for any loss or damage resulting from the application of **Sharda Metolachlor 84.4EC-D** in any manner not listed on this label. The applicator is responsible for following all state and local regulations and ordinances relative to spraying **Sharda Metolachlor 84.4EC-D**.

## SPRAY DRIFT MANAGEMENT

Avoiding spray drift at the application site is the responsibility of the applicator and the grower. The interaction of many equipment-and-weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

**Ground Applications:** Apply using a nozzle height no more than 4 feet above the ground or crop canopy.

**Aerial Applications:** Product efficacy is reduced if the distance of the outermost nozzles on the boom exceed ¾ the length of the wingspan or rotor. Nozzles must point backward parallel with the air stream and must not be pointed downward more than 45 degrees. Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and account for the information provided in the **SPRAY DRIFT MANAGEMENT** section of this label.

## IMPORTANCE OF DROPLET SIZE

The most effective way to reduce drift potential is to apply large droplets greater than 150-200 microns. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential, but will not prevent drift if applications are made improperly, or under unfavorable environmental conditions (see **Wind, Temperature and Humidity**, and **Temperature Inversion** sections). The presence of sensitive crops/species, environmental conditions, and pest pressure can impact applicator decisions in balancing drift control and coverage.

## CONTROLLING DROPLET SIZE

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure** - Use the lower spray pressures recommended for the nozzle. Higher pressure reduces droplet size and does not improve canopy penetration. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provide uniform coverage.
- **Nozzle Orientation** - Orienting nozzles so that the spray is released backwards, parallel to the airstream will produce larger droplets than other orientations. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid stream nozzles oriented straight back produce larger droplets than other nozzle types.

## BOOM LENGTH

For some use patterns, reducing the effective boom length to less than  $\frac{1}{4}$  of the wingspan or rotor length may further reduce drift without reducing swath width.

## APPLICATION HEIGHT

Do not make applications at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

## SWATH ADJUSTMENT

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the up and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase, with increasing drift potential (higher wind, smaller drops, etc.).

## WIND

Drift potential is lowest between wind speeds of 2 - 10 mph. However, many factors, including droplet size and equipment type determine drift potential at any given speed. Don't apply when wind speed below 2 mph due to variable wind direction and high inversion potential. **NOTE:** Local terrain can influence wind patterns. Every applicator should be familiar with local wind patterns and how they affect drift.

## TEMPERATURE AND HUMIDITY

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

## TEMPERATURE INVERSIONS

Do not apply during a temperature inversion, because drift potential is high. Temperature inversions restrict vertical air mixing, which causes small-suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a connected cloud (under low wind conditions) indicates an inversion, while smoke that moves upwards and rapidly dissipates indicates good vertical air mixing.

## SENSITIVE AREAS

**Sharda Metolachlor 84.4EC-D** must only be applied when the potential for drift to adjacent sensitive areas (e.g., residential areas, bodies of water, known habitat for threatened or endangered species, non-target crops) is minimal (e.g., when wind is blowing away from the sensitive areas).

## APPLICATION WITH IMPREGNATED DRY BULK GRANULAR FERTILIZERS

**Sharda Metolachlor 84.4EC-D** may be impregnated or coated on many dry bulk granular fertilizers and applied alone or with **Sharda Metolachlor 84.4EC-D** tank mixtures that are registered for pre-plant incorporation or pre-plant surface application. Follow all directions for use restrictions and precautions on the **Sharda Metolachlor 84.4EC-D** label regarding corn, rates per acre, soil texture, application methods, and rotational crops.

It is the responsibility of the individual and/or company selling the herbicide/fertilizer mixture to comply with all individual state regulations relating to dry bulk granular fertilizer blending, registration, labeling, and application.

Prepare the herbicide/fertilizer mixture by using any closed drum, belt, ribbon, or other commonly used dry bulk fertilizer blender. Space nozzles used to spray **Sharda Metolachlor 84.4EC-D** onto the fertilizer to provide uniform spray coverage. Aim the spray onto the fertilizer only, avoiding the walls of the blender.

If the herbicide/fertilizer mixture is too wet, add a highly absorptive material, such as Agsorb® FG or Celatom MP-79®, or similar granular clay or diatomaceous earth materials, to obtain a dry, free-flowing mixture. Add absorptive materials only after the herbicide has been thoroughly blended into the fertilizer mixture. Best application results are obtained when a granule of 6/30 particle size or of a size similar to that of the fertilizer materials is used. Use less than 2% by weight of absorptive material. Do not use more than 5% absorptive material by weight.

Calculate the amount of **Sharda Metolachlor 84.4EC-D**, **AAtrex**, **AAtrex + Princep**, **Princep**, **Sencor**, **Lexone**, or **Sonalan** using the following formula:

2,000 lbs. fertilizer/acre X pts./A liquid/flowable product = pints of liquid/flowable product per ton of fertilizer

2,000 lbs. of fertilizer/acre X lbs./A dry product = pints of dry product per ton of fertilizer

**Application by Pneumatic (Compressed Air) Equipment (Sharda Metolachlor 84.4EC-D alone):** High humidity, high urea concentrations, low fertilizer use rates, and dusty fertilizer can cause fertilizer mixtures to build up and/or plug the distributor head, air tubes, or nozzle deflector plates. To minimize buildup, premix 1-4 pints/gallon **Sharda Metolachlor 84.4EC-D** and ExxonMobil™ Aromatic 200. Aromatic 200 is a noncombustible, nonflammable petroleum product that can be used in either a fertilizer blender or through direct injection systems. Do not use drying agents when using Aromatic 200.

If impregnating **Sharda Metolachlor 84.4EC-D** in a blender before application, substitute drying agent for the Aromatic 200 for a dryer mixture. Do not use drying agents with On-The-Go impregnation equipment.

**Precautions:** Use mixtures of **Sharda Metolachlor 84.4EC-D** and Aromatic 200 on dry fertilizer only. Poor results or crop injury can occur if these mixtures are used in water or liquid fertilizer solutions for spraying applications.

#### Restrictions:

To avoid potential for explosion:

- DO NOT impregnate **Sharda Metolachlor 84.4EC-D** on ammonium nitrate, potassium nitrate, or sodium nitrate, either alone or in blends with other fertilizers.
- DO NOT use **Sharda Metolachlor 84.4EC-D** on straight limestone as absorption will not occur.
- Fertilizer blends containing limestone can be impregnated.

#### Application of Impregnated Dry Bulk Granular Fertilizer

Apply 200 to 700 pounds of the herbicide/fertilizer mixture per acre. Apply the mixture uniformly to the soil with properly calibrated equipment immediately after blending. Uniform application of the herbicide/fertilizer mixture is essential in order to prevent possible crop injury to subsequent rotational crops. Non-uniform application results in unsatisfactory weed control. In areas where conventional tillage is practiced, incorporate the mixture shallowly into the soil. On fine- or medium-textured soils in areas where soil incorporation is not planned, i.e., reduced-tillage situations or in some conventional till situations, apply **Sharda Metolachlor 84.4EC-D** approximately 30 days before planting to allow moisture to move the herbicide/fertilizer mixture into the soil. On coarse-textured soils, apply **Sharda Metolachlor 84.4EC-D** approximately 14 days prior to planting. Do not use herbicide/fertilizer mixtures on crops where bedding occurs.

#### CHEMIGATION - CENTER PIVOT IRRIGATION

**Sharda Metolachlor 84.4EC-D** alone or in tank mixture with other herbicides on this label that are registered for center pivot application can be applied in irrigation water pre-emergence (after planting but before weeds or crop emerge) at specified rates listed on this label. Apply this product only through a center pivot irrigation system.

**Do not apply this product through any other type of irrigation system.**

Crop injury, reduced efficacy, and/or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have questions about calibration, contact State Extension specialists, equipment manufacturers, or other experts. Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label prescribed safety devices for public water systems are in place. A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

#### Operating Instructions

1. The system must contain a functional check-valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water-source contamination from back flow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check-valve to prevent the flow of fluid back toward the injection pump.

3. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
6. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump or piston pump), effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.
8. Prepare a mixture with a minimum of 1 part of water to 1 part herbicide(s) and inject this mixture into the center pivot system. Injecting a larger volume of a more dilute mixture per hour will usually provide more accurate calibration of metering equipment. Maintain sufficient agitation to keep the herbicide in suspension.
9. Meter into irrigation water during entire period of water application.
10. Apply in ½-1 inch of water. Use the lower water volume (½ inch) on coarse-textured soils and the higher volume (1 inch) on fine-textured soils. More than 1 inch of water at application may reduce weed control by moving the herbicide below the effective zone in the soil.

**Precaution for center pivot applications:** Where sprinkler distribution patterns do not overlap sufficiently, unacceptable weed control can occur. Where sprinkler distribution patterns overlap excessively, crop injury can occur.

**Note:** For information on applying in lower volumes of carrier, see **Low Carrier Application** section of this label.

#### CLEANING INSTRUCTIONS

- Do not use the same sprayer without thoroughly cleaning on sensitive crops; minute residues of **Sharda Metolachlor 84.4EC-D** in the tank can injure crops.
- Wash sprayer and spray equipment thoroughly with clean water immediately after use.
- Drain any remaining spray solution of **Sharda Metolachlor 84.4EC-D** from the spray tank and dispose of according to label disposal instructions.
- Rinse the spray tank and refill with water, adding 1 cup heavy-duty detergent per 20 gallons of water.
- Recycle this mixture through the equipment for 5 minutes, and spray out.
- Clean pump and nozzle screens thoroughly.
- Wash away any spray mixture from the outside of spray tank, nozzles or spray rig.
- Dispose of all rinse water in compliance with local, state, and Federal guidelines.

#### USE PRECAUTIONS

Where directions specify a **Sharda Metolachlor 84.4EC-D** tank mixture with AAtrex formulations, other brands of atrazine may be used. Follow the rates, instructions, and limitations on the AAtrex or respective atrazine product label if other brands of atrazine are used.

Dry weather following pre-emergence application of **Sharda Metolachlor 84.4EC-D** or a tank mixture can reduce efficacy. Cultivate if weeds develop.

Where reference is made to weeds being partially controlled, partial control means erratic control that can range from poor to good, or consistent control at levels below what is generally considered acceptable for commercial weed control.

#### USE RESTRICTIONS

- Do not apply under conditions which favor runoff or wind erosion of soil containing this product to non-target areas.
- Do not apply to impervious substrates such as paved or highly compacted surfaces.
- Do not apply to powdery dry or light sand soils when conditions favor wind erosion. Soil surfaces must first be settled by rainfall or irrigation.
- Do not use tail-water from the first flood or furrow irrigation of treated fields to treat non-target crops unless at least ½ inch of rainfall has occurred between application and the first irrigation.
- If **Sharda Metolachlor 84.4EC-D** is incorporated, any supplemental tillage before planting must not exceed the depth of incorporation.

**Sharda Metolachlor 84.4EC-D** applied alone controls or partially controls the following weeds:

Barnyardgrass (watergrass)	Foxtail millet	Shattercane
Bristly foxtail	Galinsoga	Signalgrass ( <i>Brachiaria</i> )
Carpetweed	Giant foxtail	Southwestern cupgrass
Common purslane	Goosegrass	Tall waterhemp
Common waterhemp	Green foxtail	Texas panicum
Crabgrass	Hairy nightshade	Volunteer sorghum

Crowfootgrass	Pigweed	Wild proso millet*
Eastern black nightshade	Prairie cupgrass	Witchgrass
Eclipta <sup>j</sup>	Red rice	Woolly cupgrass*
Fall panicum	Robust foxtails (purple, white)	Yellow foxtail
Florida beggarweed <sup>j</sup>	Sandbur <sup>j</sup>	Yellow nutsedge
Florida pusley	Seedling johnsongrass <sup>j</sup>	

<sup>j</sup>Partial control. Refer to the **product information** section. Weed control is erratic due partially to variable weather conditions.

\*For control of these weeds in corn only, refer to the **Corn - Woolly Cupgrass and Wild Proso Millet Control Program** section of this label. **Florida Beggarweed**: Apply a minimum of 2 pints/acre pre-emergence for partial control.  
**Texas panicum**: Apply a minimum of 2 pints/acre using a center pivot irrigation system.

#### To improve weed control:

1. Till moist soil thoroughly to destroy germinating and emerged weeds. If **Sharda Metolachlor 84.4EC-D** is applied Pre-Plant incorporated, tillage may be used to incorporate **Sharda Metolachlor 84.4EC-D** if uniform 2-inch incorporation is achieved as specified in **Application Procedures**.
2. Plant crop into moist soil immediately after tillage. If **Sharda Metolachlor 84.4EC-D** is to be used pre-emergence, apply at planting or immediately after planting.
3. Irrigate ½ - 1 inch of water with a sprinkler system, if available, within 2 days of application. Irrigate with ½ inch water volume on coarse-textured soils, and 1 inch on fine-textured soils. Refer to the section on **Center Pivot Irrigation Application** for instructions with this application method.
4. If irrigation is impossible and rain does not occur within 2 days after planting and application, weed control may be decreased. Under these conditions, perform a shallow cultivation as soon as weeds emerge.

To improve weed control in corn, use 2.0 - 2.67 pts./A or the pre-plant surface-applied rates for **Sharda Metolachlor 84.4EC-D** alone or in tank mixture, if allowed, when making pre-plant incorporated or pre-emergence applications.

#### Rotational Crops:

##### Sharda Metolachlor 84.4EC-D Alone:

If a crop treated with **Sharda Metolachlor 84.4EC-D** alone is lost, any crop on this label may be replanted immediately. Do not make a second broadcast application of this product. If the original application was banded and the second crop is planted in the untreated row middles, make a second banded treatment.

Crop	Rotation Interval (Months)
Alfalfa	4 Months
Barley, oats, rye, wheat	4 ½ Months
Clover	9 Months
Tomatoes	6 Months
Any crop on this label plus root crops, tobacco, barley, buckwheat, milo, rice, cabbage, peppers, stone fruits, or tree nuts	Spring following treatment
All other crops	12 Months

Following a lay-by treatment or multiple treatments applied the previous season, any crop on this label, in addition to tobacco, cabbage, or peppers, stone fruits, or tree nuts may be planted in the spring.

#### Restrictions:

- Do not make a second broadcast application of **Sharda Metolachlor 84.4EC-D**.

**Sharda Metolachlor 84.4EC-D Tank Mixtures**: For **Rotational Crops** restrictions for **Sharda Metolachlor 84.4EC-D** used in tank mixtures, refer to the statements/restrictions above for **Sharda Metolachlor 84.4EC-D** and to the respective product labels of any mixing partner(s) for additional statements/restrictions.

#### CORN (Field, Sweet, and Pop)

##### Sharda Metolachlor 84.4EC-D ALONE

Make either pre-plant surface, pre-plant incorporated, pre-emergence, or lay-by applications using the rates specified.

#### Pre-Plant Surface-Applied Application:

Refer to instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**.

**Fall Application** (Apply after September 30 in MN, ND, SD, WI and north of Route 30 in IA; Apply after October 15 north of Route 91 in NE and south of Route 30 in IA; Apply after October 31 north of Route 136 in IL): In all locations, apply to crop stubble after harvest when the sustained soil temperature at a 4-inch depth is less than 55°F and falling. In minimum-till or no-tillage systems on soils having greater than 2.5% organic matter, apply 1.67 - 2.0 pts./A on *medium-textured* and 2.0 pts./A on *fine-textured* soils. A fall and/or spring tillage operation may precede the application. Minimize furrow and ridge formation in the tillage operations.

**Restrictions:**

- If a spring application is made, the sum total rate of fall and spring applications must not exceed the maximum total rate for corn.
- Do not apply to frozen ground.
- A fall and/or spring tillage may follow application, but do not exceed an incorporation depth greater than 2 - 3 inches.

Use of **Sharda Metolachlor 84.4EC-D** on medium- and fine-textured soils with minimum-tillage or no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY:

- Apply 2/3 the specified labeled rate of **Sharda Metolachlor 84.4EC-D** (1.67 pts./A on medium soils and 2.0 pts./A on fine soils) as a split treatment 30 - 45 days before planting and the remainder at planting. Applications made less than 30 days prior to planting may be as either a split application or single treatment.
- Apply 1.33 pts./A on coarse soils not more than 2 weeks prior to planting.

On medium- and fine-textured soils with minimum- or no-tillage systems in CT, DE, MA, MD, ME, MI, NH, NY, OH, PA, RI, VA, VT, and WV, pre-plant surface applications may be applied following the directions for use above. If the amount of rainfall results in unsatisfactory length of weed control following the earlier treatment, a post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide may be used, i.e., AAtrex, Beacon®, Bicep®, Exceed®, Accent®, Banvel, Basagran®, bromoxynil (Brominal® or Butiril®), or 2,4-D. Observe all directions for use, restrictions, precautions, and limitations on the post-emergent herbicide label.

**Restriction:**

- If the post-emergence treatment includes an herbicide used pre-plant surface-applied, do not exceed the total maximum specified rate for corn on a given soil texture.

**Pre-Plant Incorporated or Pre-Emergence Applications:**

Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**.

**Coarse soils:** Apply 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** if organic matter content is less than 3%, or 1.33 pts./A if organic matter content is 3% or greater.

**Medium soils:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Fine soils:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** if organic matter content is less than 3%, or 1.67 - 2.0 pts./A if organic matter content is 3% or greater.

**Lay-by Applications:**

To extend the duration of weed control in corn, apply the maximum rate of 2.0 pts. per acre **Sharda Metolachlor 84.4EC-D** after corn emerges until the corn reaches 40 inches tall, following any pre-plant surface-applied, pre-plant incorporated, or pre-emergence herbicide application, including **Sharda Metolachlor 84.4EC-D**.

For best results, apply to soil free of emerged weeds and directed towards the base of corn plants in excess of 5 inches tall. The total **Sharda Metolachlor 84.4EC-D** rate applied on corn during any one crop year must not exceed 4 pts./A, depending on soil texture.

**Corn Restrictions:**

- Do not graze or feed forage from treated areas for 30 days following application.

**Shattercane, Wild Proso Millet, Woolly Cupgrass, and Eclipta - Partial Control:**

Apply 2.0 - 2.5 pts./A of **Sharda Metolachlor 84.4EC-D** as a single application, or apply 1.0 - 1.33 pts./A pre-plant incorporated followed by 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** pre-emergence. Make pre-emergence application during or after planting, but before weeds and corn emerge. Apply the 1.33 pts./A rate of **Sharda Metolachlor 84.4EC-D** when a heavy infestation of shattercane, wild proso millet, woolly cupgrass, or eclipta is expected. Make a shallow cultivation to control any late emerging weeds. Do not apply more than a total of 2.55 pts./A **Sharda Metolachlor 84.4EC-D**.

**Woolly Cupgrass and Wild Proso Millet Control:**

**Medium soils:** Apply 1.67 pts./A **Sharda Metolachlor 84.4EC-D** early pre-plant, pre-plant incorporated, or pre-emergence.

**Fine soils:** Apply 2.0 pts./A up to the maximum specified label rate. Lightly incorporate with a rotary hoe if rainfall does not occur within 5 - 7 days

Apply a post-emergence tank mix of 0.38 oz./A Beacon or 1 packet per 4 acres Exceed plus Accent SP at 0.33 oz./A plus 1 qt. of crop oil concentrate plus 1 gal./A of 28% nitrogen, or the equivalent amount of ammonium sulfate, when grasses are 2-3 inches tall and the corn is at least 4 inches tall. Cultivate 14-21 days after the post-emergence application.

**Precautions:**

If annual weeds escape following a pre-plant surface, pre-plant incorporated, or pre-emergence treatment of **Sharda Metolachlor 84.4EC-D**, follow with a post-emergence application of an appropriately labeled broadleaf and/or grass weed herbicide, i.e., AATrex, Beacon, Bicep, Exceed®, Accent, Banvel, Basagran, Brominal, Butril, or 2,4-D.

#### Restrictions:

- Do not apply more than the specified labeled rate for a given soil texture per year, either as a single or split treatment.
- Do not use **Sharda Metolachlor 84.4EC-D** on peat or muck soils.
- If the post-emergence treatment includes the herbicide used in the earlier treatment, do not exceed the total labeled rate for corn on a given soil texture.
- Do not exceed 1.2 lbs. a.i./A of AATrex in tank-mix combination with Brominal or Butril post-emergence.
- Refer to the AATrex, Brominal, and Butril labels for specific rates and precautions.

In corn, **Sharda Metolachlor 84.4EC-D** may be used up to 2.75 pts./A either pre-plant surface, pre-plant incorporated, or pre-emergence treatment on soils having an organic matter content between 6%-20% or up to 2.0 pts./A on any soil for extended residual control and where sever stands of problem weeds are expected.

Brominal and Butril may be applied post-emergence alone or in tank-mix combination with AATrex. Refer to the AATrex, Brominal, or Butril labels for specific rates and precautions.

#### Sharda Metolachlor 84.4EC-D Combinations for Corn

It is the pesticide user's responsibility to ensure that all products in the listed mixtures are registered for the intended use. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

**Sharda Metolachlor 84.4EC-D** in any tank mixture for corn (except **Sharda Metolachlor 84.4EC-D** + AATrex post-emergence and **Sharda Metolachlor 84.4EC-D** + Banvel post-emergence) may be applied in water or fluid fertilizer. Use only water in the **Sharda Metolachlor 84.4EC-D** + AATrex or the **Sharda Metolachlor 84.4EC-D** + Banvel post-emergence tank mixes.

#### Restriction:

- Do not graze or feed forage from treated areas for 30 days following application.

#### FOR TANK MIXTURES WITH AATREX (OR OTHER BRANDS OF ATRAZINE):

All the restrictions and rate limitations on the AATrex label must be followed if more restrictive/protective than those on this label. In addition, if AATrex is/must be applied at rates lower than those listed on this label, broadleaf weed control may be affected. Refer to the AATrex label for weeds controlled at the reduced rates.

#### Sharda Metolachlor 84.4EC-D Tank Mixtures for Corn - Additional Weeds Controlled and Special Instructions

Tank Mix: <b>Sharda Metolachlor 84.4EC-D</b> +	Weeds Controlled	Weeds Partially Controlled
<b>AATrex and/or Princep (Pre-Plant Surface, PPI, PRE)</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Ragweed, Smartweed, Velvetleaf	
<b>AATrex (Post)</b>	<b>Controls:</b> Kochia, Lambsquarters, Mustard, Prickly sida, Ragweed, Smartweed, Velvetleaf <b>Partially controls:</b> Cocklebur, Jimsonweed, Morningglory	
<b>Banvel (Field Corn)</b>	<b>Controls:</b> Lambsquarters, Ragweed, Smartweed <b>Partially controls:</b> Cocklebur, Jimsonweed, Morningglory, Velvetleaf	
<b>AATrex + Lorox</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Pigweed, Ragweed, Smartweed, Velvetleaf	
<b>AATrex or Princep + Prowl</b>	<b>Controls:</b> Browntop panicum, Cocklebur, Common purslane, Hairy nightshade, Lambsquarters, Morningglory, Pigweed, Ragweed, Smartweed, Velvetleaf	
<b>Marksman</b>	<b>Controls:</b> Cocklebur, Common purslane, Hairy nightshade, Jimsonweed, Kochia, Lambsquarters, Morningglory, Mustard, Pigweed, Prickly sida, Ragweed, Smartweed, Velvetleaf	
<b>Broadstrike® + Sharda Metolachlor 84.4EC-D</b>	<b>Controls:</b> Common purslane, Hairy nightshade, Kochia, Lambsquarters, Mustard, Pigweed, Prickly sida, Smartweed, Velvetleaf <b>Controls or Partially controls:</b> Cocklebur, Jimsonweed, Morningglory, Ragweed depending on ratio of products used and/or weed population.	

#### MIXING INSTRUCTIONS

##### Special Mixing Instructions for Sharda Metolachlor 84.4EC-D + AATrex or Princep and Prowl:

- Although a single formulation for AATrex or Princep is listed in the rate tables, other formulations may be substituted, using the following formula: 1 lb. of AATrex Nine-O® or Princep Caliber 90® = 1.8 pts. of AATrex 4L or Princep 4L.
- Fill the spray tank ¼ full with water or fluid fertilizer and start agitation.

- Add a compatibility agent at 4 pts./100 gals. spray mixture, such as Unite or X-77.
- Add the AAtrex or Princep and allow it to become dispersed.
- Add **Sharda Metolachlor 84.4EC-D** and Prowl 4E.
- Add the rest of the water.

**Additional AAtrex Instructions:**

- Although directions specify AAtrex formulations in tank mixture with **Sharda Metolachlor 84.4EC-D**, other brands of atrazine may be used. Follow the rates, specifications, and limitations on the atrazine label.
- See additional mixing instructions on the AAtrex label.
- Refer to the **Sharda Metolachlor 84.4EC-D Combinations for Corn - Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems** sections for specific directions for 2,4-D or banvel burndown combinations in Minimum-Tillage and No-Tillage systems.

Certain states may have established rate limitations for atrazine within specific geographical areas. Consult your state lead pesticide control agency for additional information. It is a violation of this label to deviate from state use regulations.

**Lorox Instructions:** Other formulations of Lorox can be used: 1 lb. of Lorox DF = 1 pt. of Lorox L.

In minimum-tillage and no-tillage systems, mix with Gramoxone Extra for control of most emerged annual weeds and suppression of perennial weeds; or with Landmaster BW for suppression of emerged field bindweed and control or suppression of annual weeds; or with Roundup for control of most emerged annual and perennial weeds.

**Sharda Metolachlor 84.4EC-D** in any tank mixture for corn may be applied in water or fluid fertilizer, except as follows:

**Corn Restrictions:**

- For all applications to corn, do not graze or feed forage from treated areas for 30 days following application.
- When applying **Sharda Metolachlor 84.4EC-D** in tank mixture with AAtrex, do not exceed a total of 2.5 lbs. a.i. of atrazine per acre per year.

Refer to **Corn (All Types) - Sharda Metolachlor 84.4EC-D Alone**, for sequential post-emergence treatments if escape weeds develop.

In corn, **Sharda Metolachlor 84.4EC-D** may be used up to 2.0 pts./A in combinations on any soil for extended residual control and where severe stands of problem weeds are expected.

**Tank Mixture with AAtrex or Princep, or AAtrex + Princep - Pre-Plant Surface, Pre-Plant Incorporated, or Pre-Emergence**

In addition to the weeds controlled by **Sharda Metolachlor 84.4EC-D** alone, **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, applied pre-plant surface, pre-plant incorporated, or pre-emergence, also controls the following weeds:

Browntop Panicum	Hairy Nightshade	Ragweed
Cocklebur	Lambsquarters	Smartweed
Common Purslane	Morningglory	Velvetleaf

Apply **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep either pre-plant surface, pre-plant incorporated, or pre-emergence.

**Pre-Plant Surface-Applied:** Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions** and under application instructions for **Sharda Metolachlor 84.4EC-D** alone on corn. Apply **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep on medium soils (1.67 pts./A of **Sharda Metolachlor 84.4EC-D** + 3.2 - 4 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) and on fine soils (1.67 - 2.0 pts./A of **Sharda Metolachlor 84.4EC-D** + 4 - 5 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined) in minimum-tillage and no-tillage systems in CO, IA, IL, IN, KS, KY, MN, MO, MT, ND, NE, SD, TN, WI, and WY. Apply the tank mixtures as a split or single treatment in those states and as indicated in the **Sharda Metolachlor 84.4EC-D Alone - Pre-Plant Surface-Applied** section of the label for corn. On coarse soils, apply 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** and 3.2 pts./A of AAtrex 4L or Princep 4L, or AAtrex 4L + Princep 4L combined.

**Pre-Plant Incorporated or Pre-Emergence:** Follow instructions for use of **Sharda Metolachlor 84.4EC-D** alone under **Application Instructions**. Apply **Sharda Metolachlor 84.4EC-D** in combination with AAtrex and using the appropriate rates from the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep table.

**Restriction:**

- Do not apply more than the specified labeled rate for a given soil texture per year, either as a split or single treatment.

**Shattercane, Wild Proso Millet, Woolly Cupgrass and Eclipta - Partial Control**



For more consistent partial control of shattercane, wild proso millet, wooly cupgrass and elipta where **Sharda Metolachlor 84.4EC-D** is applied in tank mixture or sequentially with other registered corn herbicides, apply 2.0 - 2.33 pts. per acre as a single application or make the following applications:

1. Apply 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** + 2 lbs. a.i./A of AAtrex or Princep pre-plant incorporated, followed by 1.0 - 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** pre-emergence. Make the pre-emergence application during or after planting, but before weeds and corn emerge.
2. Apply **Sharda Metolachlor 84.4EC-D** at 1.33 pts./A alone or in tank mix combination with up to 2 lbs. a.i./A of AAtrex or Princep, pre-plant incorporated. Do not exceed the total rate of triazine herbicide listed for corn grown on a given soil texture. Follow with a post-directed application of Evik® 80W at 2.5 lbs./A. Refer to the Evik 80W label for specific directions for the post-directed application.
3. Apply Eradicane® or Sutan® (or equivalent EPTC or butylate formulations) at labeled rates pre-plant incorporated, followed by a pre-emergence application of **Sharda Metolachlor 84.4EC-D** at 1.0 - 1.33 pts./A. Do not use Eradicane or Sutan on soils where rapid degradation has been shown to occur. Make the pre-emergence application during or after planting, but before weeds and corn emerge.

When following the application regimes in numbers 1-3 above, make a shallow cultivation after the pre-emergence or post-emergence application to control any late emerging shattercane or wild proso millet plants.

**Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)**

**Do not use in muck or peat (soils with greater than 20% organic matter).**

BROADCAST RATES PER ACRE				
SOIL TEXTURE	Less than 3% Organic matter		Greater than 3% Organic matter	
	Tank Mix: Sharda Metolachlor 84.4EC-D +			
	AAtrex Nine O or Princep Caliber 90*	AAtrex Nine O** or Princep Caliber 90**	AAtrex Nine O or Princep Caliber 90*	AAtrex Nine O** or Princep Caliber 90**
Coarse	0.85 - 1.0 pts. + 1.1-2.2 lbs.	0.85 - 1.0 pts. + 0.6 - 1.1 lbs. + 0.6 - 1.1 lbs.	1.0 pts. + 1.3 - 2.2 lbs.	1.0 pts. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.
Medium	1.0 - 1.33 pts. + 1.3-2.2 lbs.	1.0 - 1.33 pts. + 0.7 - 1.1 lbs. + 0.7 - 1.1 lbs.	1.33 pts. + 1.8 - 2.2 lbs.	1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.
Fine	1.33 pts. + 1.8 - 2.2 lbs.	1.33 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.	1.33 - 1.67 pts. + 1.8 - 2.2 lbs.***	1.33 - 1.67 pts. + 0.9 - 1.1 lbs. + 0.9 - 1.1 lbs.

\*Use Princep instead of AAtrex when heavy infestations of crabgrass or fall panicum are expected. On soils having between 6% and 20% organic matter, use up to 2.33 pts./A **Sharda Metolachlor 84.4EC-D** in tank mix combination with 2.2 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L. Refer to the AAtrex label for weeds controlled at this reduced rate.

\*\*When using the tank mixture of **Sharda Metolachlor 84.4EC-D** + AAtrex Nine-O + Princep Caliber 90, use equal rates of each as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given in the **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)** table.

(Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.2 lbs./A, use 0.4 lb. of AAtrex + 0.8 lb. of Princep, respectively.)

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rates of AAtrex 4L, or the same total amount of AAtrex + Princep with 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

#### Tank Mixture with AAtrex - Post-Emergence

Weeds Controlled			Weeds Partially Controlled		
Barnyardgrass (watergrass)	Yellow foxtail	Prickly sida	Cocklebur	Morningglory	Yellow Nutsedge
Crabgrass	Jimsonweed	Purslane			
Crowfootgrass	Kochia	Ragweed			
Fall panicum	Lambsquarters	Smartweed			
Giant foxtail	Mustard	Velvetleaf			
Green foxtail	Pigweed				

**Coarse soils:** Apply 1.0 pts./A of **Sharda Metolachlor 84.4EC-D** + 1.3 lbs./A of AAtrex Nine-O\*.

**Medium soils:** 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** + 1.8 lbs./A of AAtrex Nine-O.

**Fine soils:** 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** + 1.8 - 2.2 lbs./A\*\* of AAtrex Nine-O. Apply this tank mixture before grass and broadleaf weeds pass the 2-leaf stage and before corn exceeds 5" tall. Application to weeds larger than the 2-leaf stage will generally result in unsatisfactory control.

\*When using AAtrex 4L, use equivalent rates. One lb. of AAtrex Nine-O equals 1.8 pts. of AAtrex 4L.

\*\*For better control of cocklebur, morningglory, velvetleaf, and yellow nutsedge on fine-textured soils above 3% organic matter, apply 2.2 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, with 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

#### **Lay-by Applications:**

Apply to corn plants less than 12" tall. Direct applications to corn in >5" tall to the base of the corn plants. Apply over the top to corn plants <5" tall. Corn leaf burn can occur, but won't impact growth or yield.

Tank mixtures of **Sharda Metolachlor 84.4EC-D** + AAtrex can be applied following application of any registered pre-plant surface applied, pre-plant incorporated, or pre-emergence corn herbicide, including **Sharda Metolachlor 84.4EC-D** + AAtrex.

#### **Restrictions:**

- Do not exceed 4 pints of **Sharda Metolachlor 84.4EC-D**.
- Do not exceed 2.5 lbs. a.i./A AAtrex during any one crop year.
- Refer to the AAtrex label for geographic, soil-texture, and rotational restrictions.

#### **Tank Mixture with Banvel**

**Pre-Emergence:** Use this tank mixture only on field corn which is flat-planted (no furrows) in CO, IA, IL, IN, KS, MN, NE, OH, SD, and WI. In addition to the weeds controlled by **Sharda Metolachlor 84.4EC-D** alone, **Sharda Metolachlor 84.4EC-D** + Banvel, applied pre-emergence controls lambsquarters, ragweed, smartweed, and partially controls cocklebur, jimsonweed, morningglory, and velvetleaf.

Apply **Sharda Metolachlor 84.4EC-D** + Banvel Pre-Emergence.

**Medium soils:** Broadcast 1 pt./A of Banvel with 1.33 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Fine soils:** 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** tank mixture to the soil surface at planting or after planting, but before corn emerges. Plant corn at least 1½" deep and apply behind planting equipment, avoiding incorporation by the planter wheel or other seed covering device.

**Coarse soils:** Do not apply.

#### **Restrictions:**

- Do not allow **Sharda Metolachlor 84.4EC-D** to drift to non-target plants such as soybeans during application.
- Do not apply with aircraft.
- If it is necessary to rotary hoe to break the soil crust, do not disturb the soil more than ½" deep.
- Do not incorporate before corn emerges.

#### **Post-Emergence for Control of Pigweed (Mid-Atlantic states, including DE, MD, PA, VA, and WV):**

Apply 1.0 - 1.5 pts. of **Sharda Metolachlor 84.4EC-D** + 0.5 - 1 pt./A of Banvel by ground equipment when pigweed plants are <3" tall and before corn >5" tall in a minimum of 20 gals. Of spray per acre. Use the lower rate within the specified rate range on coarse-textured and low organic matter soils. Use the higher rate within the specified rate range on fine textured and high organic matter soils.

Banvel SGF and Clarity® may be used at equivalent lbs. of active ingredient per acre.

#### **Restrictions:**

- Do not allow **Sharda Metolachlor 84.4EC-D** to drift to non-target plants such as soybeans during application.
- Do not apply with aircraft.

#### **Tank Mixture with AAtrex and Lorox to Control of Lambsquarters and Pigweed**

For prolonged control of lambsquarters and pigweed in DE, MD, NJ, NY, PA, VA, and WV, apply **Sharda Metolachlor 84.4EC-D** pre-emergence in tank mix combination with AAtrex + Lorox. Apply **Sharda Metolachlor 84.4EC-D** and AAtrex according to the rates specified in the **Sharda Metolachlor 84.4EC-D** + AAtrex or Princep, or **Sharda Metolachlor 84.4EC-D** + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types) table and Lorox according to the following rates:

#### **SOIL TEXTURE & BROADCAST RATE PER ACRE:**

Sandy loam (1 - 3% organic matter): 0.67 lb./A Lorox

Sandy loam (3 - 6% organic matter): 1.0 lb./A Lorox

Medium- and fine-textured soils (1-6% organic matter): 1.0 lb./A Lorox

Observe all directions for use, restrictions, precautions, and limitations on the **Sharda Metolachlor 84.4EC-D**, AAtrex, and Lorox labels when applying these products in tank mix combinations.

**Tank Mixture with AAtrex or Princep + Prowl for Prolonged Control of Lambsquarters and Pigweed in Field Corn Only (Northeast U.S., including MI, IN, KY, and States East of These)**

For prolonged control of lambsquarters, pigweed, and other annual broadleaf and grass weeds, apply **Sharda Metolachlor 84.4EC-D** in tank mix combination with AAtrex\* or Princep + Prowl 4E after planting but before corn or weeds emerge. Apply using ground equipment in a minimum of 10 gals. water or 20 gals. liquid fertilizer. Apply by air in a minimum of 5 gals. water. Refer to the **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)** table for rates of **Sharda Metolachlor 84.4EC-D**, AAtrex, or Princep to be applied. Apply Prowl 4E according to the following rates in the **Prowl 4E - Broadcast Rates Per Acre** table.

**Restriction:**

- Do not apply **Sharda Metolachlor 84.4EC-D** in tank mix combination with AAtrex 80W + Prowl, as this combination is incompatible. Other AAtrex formulations may be used.

**Prowl 4E - Broadcast Rates Per Acre**

Percent Organic Matter in Soil	Coarse Soil	Medium Soil	Fine Soil
<1.5%	1.5 - 2.0 pts.	2.0 pts.	2.0 pts.
1.5 - 3%	2.0 pts.	3.0 pts.	3.0 pts.
>3%	3.0 pts.	3.0 pts.	3.0 pts.

Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination. Refer to the Prowl 4E label for replanting instructions in the event of crop loss.

**Tank Mixture with AAtrex\* or Princep, AAtrex + Princep, with Gramoxone Extra, Landmaster BW, or Roundup for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, the contact herbicides Gramoxone Extra, Landmaster BW, or Roundup may be added to a tank mix of **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep**. The **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep** portion of the tank mixture provides pre-emergence control of the weeds listed on this label in the tank mixture section for **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep - Pre-Plant Surface, Pre-Plant Incorporated, or Pre-Emergence**.

**Application:** Apply before, during, or after planting, but before the corn emerges, at the rates specified below. Add Gramoxone Extra, Landmaster BW, or Roundup at the following broadcast rates:

**Gramoxone Extra:** 1.5 - 2.0, 2.0 - 2.5, or 2.5 - 3.0 pts./A to 1 - 3 inches, 3 - 6 inches, or 6-inch tall weeds, respectively. Apply surfactant at 1 or 2 pts./100 gals. of spray mixture with 75% or greater or 50 - 74% nonionic active ingredient, respectively. This treatment will not control weeds greater than 6" tall.

**Restriction:**

- Do not apply combinations containing Gramoxone Extra in suspension-type liquid fertilizers because the activity of paraquat will be reduced.

**Landmaster BW:** 27 - 54 oz./A depending on weed species and size. See the Landmaster BW label for weeds controlled, rates for specific weeds, and other information concerning use.

**Roundup:** See the Roundup or Roundup RT label for weeds controlled, rates, and other use directions. Apply in 20 - 60 gals. of water or fluid fertilizer per acre with ground equipment.

**Coarse soils:** Apply 1.0 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.3 lbs. of AAtrex Nine-O\* or Princep Caliber 90\*, or with 0.7 lb. of AAtrex Nine-O\*\* + 0.7 lb. of Princep Caliber 90\*\*.

**Medium soils:** Apply 1.33 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.8 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 lb. of AAtrex Nine-O + 0.9 lb. of Princep Caliber 90.

**Fine soils\*\*\*:** Apply 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D** with 1.8-2.2 lbs. of AAtrex Nine-O or Princep Caliber 90, or with 0.9 - 1.1 lbs. of AAtrex Nine-O + 0.9 - 1.1 lbs. of Princep Caliber 90.

\*Use Princep in preference to AAtrex when heavy infestations of crabgrass or fall panicum are expected.

\*\*\*When using the tank mixture of **Sharda Metolachlor 84.4EC-D + AAtrex Nine-O + Princep Caliber 90**, use equal rates of AAtrex and Princep as shown when heavy broadleaf weed infestations are expected. When heavy infestations of crabgrass or fall panicum are expected, use a 1:2 ratio of AAtrex + Princep instead of the 1:1 ratio given.

(Example: Total AAtrex Nine-O + Princep Caliber 90 = 1.8 lbs./A, use 0.6 lb. of AAtrex + 1.2 lbs. of Princep, respectively.)

\*\*\*For cocklebur, yellow nutsedge, and velvetleaf control on *fine-textured soils* above 3% organic matter, apply 2.25 lbs./A of AAtrex Nine-O, or equivalent rate of AAtrex 4L, or the same total amount of AAtrex + Princep, with 1.33 - 1.67 pts./A of **Sharda Metolachlor 84.4EC-D**.

**Tank Mixture with AAtrex; or AAtrex + 2,4-D; or AAtrex + 2,4-D + Banvel for Minimum-Tillage or No-Tillage Systems**

In minimum-tillage or no-tillage systems where corn is planted directly into a cover crop, stale seedbed, established sod, or previous crop residues, applying **Sharda Metolachlor 84.4EC-D** in combination with AAtrex will kill most emerged small annual weeds. Apply **Sharda Metolachlor 84.4EC-D** + AAtrex before, during, or after planting, but before corn emerges, according to the rates in the **Sharda Metolachlor 84.4EC-D + AAtrex or Princep, or Sharda Metolachlor 84.4EC-D + AAtrex + Princep, Pre-Plant Incorporated or Pre-Emergence - Corn (All Types)** table.

Where heavy crop residues exist, add 0.8 - 1.6 pts./A of an appropriately labeled 3.8 lbs. a.i./gal. 2,4-D amine (such as Weedar 64, Weedar 64A, DMA-4 Herbicide, or Formula 40) to the spray tank last and apply in a minimum of 25 gals. carrier per acre.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds, and therefore, are recommended instead of water. Add X-77 surfactant at 1.0 - 2.0 qts./100 gals. of diluted spray, or another appropriate surfactant at its labeled rate, or add crop oil concentrate plus 28% liquid nitrogen (or equivalent). Apply before weeds exceed 3" tall. If alfalfa is present, add Banvel to the spray mixture at 0.33 - 0.5 pt./A and apply before alfalfa exceeds 6" tall.

For fields with existing sod grasses (e.g., bromegrass, orchardgrass, rye, or timothy), when existing weeds exceed 3" tall or when very dry conditions exist, add Gramoxone Extra at the rate of 1.67 pts./A in place of or in addition to 2,4-D, as indicated above. Do not apply Gramoxone Extra in suspension-type liquid fertilizer. Observe all directions for use, restrictions, precautions, and limitations on the respective product labels when applying these products in tank mix combination.

**Tank Mixture with Marksman in Conservation Tillage - Field and Silage Corn**

In conservation tillage systems where corn is planted directly into a cover crop or previous crop residue, **Sharda Metolachlor 84.4EC-D** + Marksman will kill most emerged small annual weeds. Apply **Sharda Metolachlor 84.4EC-D** + Marksman before, during, or after planting, but before corn emergence on medium and fine soils with greater than 2.5% organic matter. For fields with existing vegetation exceeding 3" tall or when very dry conditions exist, add Gramoxone Extra at its standard rate. Apply **Sharda Metolachlor 84.4EC-D** + Marksman post-emergence to corn <3" tall and before weedy grasses exceed the 2-leaf stage.

As carriers, nitrogen solutions and complete liquid fertilizers, applied before corn emergence, enhance burndown of existing weeds.

**Restriction:**

- Do not apply Gramoxone Extra in suspension-type liquid fertilizer or use on emerged corn. Refer to the Marksman label and follow all directions, limitations, restrictions, precautions, and instructions regarding application and use in corn.

**Tank Mixture with Broadstrike® + Sharda Metolachlor 84.4EC-D**

For pre-plant surface, pre-plant incorporated, or pre-emergence application where severe grass populations are expected on medium- or fine-textured soils with relatively high organic matter content, Broadstrike + **Sharda Metolachlor 84.4EC-D** may be spiked with **Sharda Metolachlor 84.4EC-D** for optimum performance. Refer to the Broadstrike + **Sharda Metolachlor 84.4EC-D** label for its use rate and the amount of metolachlor active ingredient it contains. **Sharda Metolachlor 84.4EC-D** may be added up to, but not to exceed, the maximum alone **Sharda Metolachlor 84.4EC-D** label rate for the soil classification. Refer to the respective labels and follow all directions, limitations, and restrictions for each product.

**STORAGE AND DISPOSAL**

Do not contaminate water, food, or feed by storage or disposal.

**Pesticide Storage:** Keep from freezing: DO NOT store below 32°F.

**Pesticide Disposal:** Pesticide wastes are toxic. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. Wastes resulting from the use of this product must be disposed of on site or at an approved waste disposal facility. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA region office for guidance.

**Container Handling:**

**NONREFILLABLE CONTAINER (EQUAL TO OR LESS THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Offer for recycling, if available.

**NONREFILLABLE CONTAINER (GREATER THAN 5 GALLONS):** Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring

at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Offer for recycling, if available.

**REFILLABLE CONTAINER:** Refill this container with pesticide only. Do not reuse this container for any other purpose. Cleaning the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller. To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10 percent full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

#### **CONDITIONS OF SALE AND LIMITATION OF WARRANTY AND LIABILITY**

**NOTICE:** Read the entire Directions for Use and Conditions of Sale and Limitation of Warranty and Liability before buying or using this product. If the terms are not acceptable, return the product at once, unopened, and the purchase price will be refunded.

The Directions for Use of this product must be followed carefully. It is impossible to eliminate all risks inherently associated with the use of this product. Ineffectiveness or other unintended consequences may result because of such factors as manner of use or application, weather, presence of other materials or other influencing factors in the use of the product, which are beyond the control of Sharda USA LLC or Seller. To the extent consistent with applicable law, all such risks shall be assumed by Buyer and User, and Buyer and User agree to hold Sharda USA LLC and Seller harmless for any claims relating to such factors.

Sharda USA LLC warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated in the Directions for Use, subject to the inherent risks referred to above, when used in accordance with directions under normal use conditions. This warranty does not extend to the use of this product contrary to label instructions, or under conditions not reasonably foreseeable to or beyond the control of Seller or Sharda USA LLC and Buyer and User assume the risk of any such use. To the extent consistent with applicable law, Sharda USA LLC, MAKES NO WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE NOR ANY OTHER EXPRESS OR IMPLIED WARRANTY EXCEPT AS STATED ABOVE.

To the extent consistent with applicable law, neither Sharda USA LLC nor Seller shall be liable for any incidental, consequential or special damages resulting from the use or handling of this product. **TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, THE EXCLUSIVE REMEDY OF THE USER OR BUYER, AND THE EXCLUSIVE LIABILITY OF SHARDA USA LLC AND SELLER FOR ANY AND ALL CLAIMS, LOSSES, INJURIES OR DAMAGES (INCLUDING CLAIMS BASED ON BREACH OF WARRANTY, CONTRACT, NEGLIGENCE, TORT, STRICT LIABILITY OR OTHERWISE) RESULTING FROM THE USE OR HANDLING OF THIS PRODUCT, SHALL BE THE RETURN OF THE PURCHASE PRICE OF THE PRODUCT OR, AT THE ELECTION OF SHARDA USA LLC OR SELLER, THE REPLACEMENT OF THE PRODUCT.** Sharda USA LLC and Seller offer this product, and Buyer and User accept it, subject to the foregoing Conditions of Sale and Limitation of Warranty and Liability, which may not be modified except by written agreement signed by a duly authorized representative of Sharda USA LLC.

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Accent, Basis, Classic, Harmony GT Staple, Synchrony, Lexone, and Canopy XL are trademarks of E.I. duPont de Nemours & Co., Inc.

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Solubor is a trademark of U.S. Borax & Chemical Corp.

Authority and Command is a trademark of FMC Corporation.

Pioneer is a registered trademark of Agco Corporation.

**Samek, Karen**

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**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Monday, July 18, 2016 2:32 PM - *suppose - #3*  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.; Kt Woodall  
**Subject:** Sharda Metolachlor Labels  
**Attachments:** 83529-000XX.20160229.V6.clean.pdf, 83529-000XX.20160229.V4.clean.pdf

Hi Karen,

Per our telephone discussion today, I've deleted the reference to clover and alfalfa in the Rotational Crops section of the label.

Please let us know what additional changes need to be made.

Thank you.

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

\*Inert ingredient information may be entitled to confidential treatment\*

**Samek, Karen**

---

**From:** Kt Woodall <ktwoodall@wagnerreg.com>  
**Sent:** Monday, July 18, 2016 12:55 PM *resubmission #2*  
**To:** Samek, Karen  
**Cc:** Cheryl Wagner  
**Subject:** RE: Metolachlor 84.4EC-D, 83529-LT  
**Attachments:** 83529-000XX.20160229.V3.clean.pdf; 83529-000XX.20160229.V3.highlighted.pdf

Hi Karen – Please see the attached for 83529-LT.

*Kt Woodall*

Wagner Regulatory Associates, Inc.  
7217 Lancaster Pike, Suite A  
Hockessin, DE 19707  
[KtWoodall@wagnerreg.com](mailto:KtWoodall@wagnerreg.com)

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]  
**Sent:** Monday, July 18, 2016 11:24 AM *Revision #2*  
**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
**Cc:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>; James Wagner <[jmw@wagnerreg.com](mailto:jmw@wagnerreg.com)>  
**Subject:** Re: Metolachlor 86.4EC, 83529-LA

Hi Cheryl,

Attached are a few edits for 83529-LT and one more edit for 83529-LA (see page 10). Please let me know if you have any questions.

Thanks,  
Karen

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**From:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
**Sent:** Friday, July 8, 2016 10:40 AM  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.; James Wagner  
**Subject:** Metolachlor 86.4EC, 83529-LA

Good morning Karen,

We have determined a way forward for Sharda's Metolachlor registrations and would like to have two products:

Metolachlor 86.4EC, 83529-LA, will list all crops EXCEPT corn  
Metolachlor 84.4EC-D, 83529-Lt [REDACTED] will list corn exclusively

Attached is the revised Metolachlor 86.4EC, 83529-LA with directions for use for corn removed—I have attached clean and highlighted versions.

I will submit a revised Metolachlor [REDACTED] label in separate email.

Thanks for all your help!!

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**



**Samek, Karen**

---

**From:** Montague, Kathryn V.  
**Sent:** Wednesday, July 13, 2016 1:32 PM  
**To:** Cheryl Wagner  
**Cc:** Samek, Karen; Seema; ashish bubna (sanjay); export1@shardaintl.com; Roy Lee Carter; Sharon Gunning; Don Rossi; James Wagner  
**Subject:** RE: Metolachlor End-Use products, EPA File Symbols 83529-LA & 83529-Lt

Hi, Cheryl,

That is fine, it can be in both locations. Our concern is that the First Aid is visible on the outside of the container when the container is on the shelf or being handled/used, without the user having to pull out or open a booklet to find it.

Thank you,  
Kay

**From:** Cheryl Wagner [mailto:cheryl@wagnerreg.com]  
**Sent:** Wednesday, July 13, 2016 12:06 PM  
**To:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>  
**Cc:** Samek, Karen <Samek.Karen@epa.gov>; Seema <regn@shardaintl.com>; ashish bubna (sanjay) <purchase@shardaintl.com>; export1@shardaintl.com; Roy Lee Carter <royleecarter@shardaintl.com>; Sharon Gunning <sgunning@shardaintl.com>; Don Rossi <drossi@shardaintl.com>; James Wagner <jmw@wagnerreg.com>  
**Subject:** Metolachlor End-Use products, EPA File Symbols 83529-LA & 83529-Lt

Dear Ms. Montague,

As a follow up to my telephone discussion with Karen Samek this morning, Sharda USA LLC respectfully acknowledges that the FIRST AID box must appear on a panel of the container label that is permanently affixed to the container. Sharda USA LLC acknowledges that if a booklet is created that contains all of the precautionary language and directions for use, the First Aid box will also be included in the booklet.

It is understood that the FIRST AID box will appear 1) On a panel on the container label that is permanently affixed to the container and 2) Inside the booklet that includes the complete directions for use.

Please advise if this is acceptable to move these applications to approval.

Thank you.

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**

Hi Cheryl,

One more issue to clear up. For the First Aid section, The First Aid section needs to be on one of the panels of the label. (40 CFR 156.68). It can be additionally placed in the booklet but it can't be in the booklet in lieu of being on one of the panels. Please provide an e-mail for the record that this is understood. Alternatively, the "First Aid" text can be removed from the reference to the booklet on page one of the label. Please let me know if you have any questions.

Thanks,  
Karen

\*Inert ingredient information may be entitled to confidential treatment\*

**Samek, Karen**

---

**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Friday, July 08, 2016 11:05 AM *Resubmission #1*  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.; James Wagner  
**Subject:** Sharda Metolachlor [REDACTED] Reg. No. 83529-LT  
**Attachments:** 83529-000XX.20160229.V2.clean.pdf; 83529-000XX.20160229.V2.highlighted.pdf

Hi Karen,

Attached is the Metolachlor [REDACTED] product label removing all crops except corn. This label is exclusively for use on corn.

Please let us know if there are additional changes.

Thanks much.

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**Samek, Karen**

---

**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Friday, July 08, 2016 10:41 AM  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.; James Wagner  
**Subject:** Metolachlor 86.4EC, 83529-LA  
**Attachments:** 83529-000XX.20160229.V3.highlighted.pdf; 83529-000XX.20160229.V3.clean.pdf

Good morning Karen,

We have determined a way forward for Sharda's Metolachlor registrations and would like to have two products:

Metolachlor 86.4EC, 83529-LA, will list all crops EXCEPT corn

Metolachlor 84.4EC-D, 83529-Lt [REDACTED] will list corn exclusively

Attached is the revised Metolachlor 86.4EC, 83529-LA with directions for use for corn removed—I have attached clean and highlighted versions.

I will submit a revised Metolachlor [REDACTED] label in separate email.

Thanks for all your help!!

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**Samek, Karen**

---

**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Thursday, July 07, 2016 12:36 PM  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.; Kenny, Daniel  
**Subject:** RE: Label for 83529-LT

Hi Karen,

It makes Sharda's label more restrictive than other competitor products.

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**From:** Samek, Karen [mailto:Samek.Karen@epa.gov]  
**Sent:** Thursday, July 07, 2016 12:08 PM  
**To:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

I have one other recommendation for the 83529-LT label for your consideration. [REDACTED]

[REDACTED] I'm recommending that the following may be useful to put on the label. I would be interested in your thoughts.

Thanks,

Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [mailto:cheryl@wagnerreg.com]  
**Sent:** Wednesday, July 06, 2016 3:21 PM

**\*Inert ingredient information may be entitled to confidential treatment\***

**To:** Samek, Karen <Samek.Karen@epa.gov>

**Subject:** RE: Label for 83529-LA

Hi Karen,

We will get back to you on the Metolachlor [REDACTED] label probably tomorrow. Not really sure how to fix that one to make it a viable label in the market.

Will get back to you tomorrow on that one.....

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**From:** Samek, Karen [mailto:Samek.Karen@epa.gov]

**Sent:** Wednesday, July 06, 2016 3:07 PM

**To:** Cheryl Wagner <cheryl@wagnerreg.com>

**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>

**Subject:** RE: Label for 83529-LA

Hi Cheryl,

Attached are my edits for your new product 83529-LA for your consideration. Please let me know if you have any questions.

Thanks,

Karen

Karen Samek

Registration Division

Samek.karen@epa.gov

(703) 347-8825

**From:** Cheryl Wagner [mailto:cheryl@wagnerreg.com]

**Sent:** Wednesday, July 06, 2016 10:49 AM

**To:** Samek, Karen <Samek.Karen@epa.gov>

**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>

**Subject:** RE: Label for 83529-LT

Hi Karen,

We are making the label changes and will get a revised label to you shortly.

[REDACTED]—am checking with Sharda as to what they want to do and will get back to you.

Regards,

Cheryl Wagner

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]  
**Sent:** Wednesday, July 06, 2016 10:29 AM  
**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
**Cc:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

I'm finishing up the label reviews of your two metolachlor products and want to get my comments to you today. I'm attaching my comments for 83529-LT for your consideration. [REDACTED]  
Please give me a call when you can at 703-347-8825.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [<mailto:cheryl@wagnerreg.com>]  
**Sent:** Tuesday, July 05, 2016 2:48 PM  
**To:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Cc:** James Wagner <[jmw@wagnerreg.com](mailto:jmw@wagnerreg.com)>; Anna Armstrong <[Anna@wagnerreg.com](mailto:Anna@wagnerreg.com)>; Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: 75-day letter for 83529-LT and 83529-LA

Hello Karen,

Attached is the report for Guideline 830.1800 for the pending metolachlor products—83529-LT and 83529-LA.

I will submit this report through CDX today/tomorrow morning. I wanted to get the report to you as soon as possible for forwarding to the EPA reviewer.

Karen, please note that this report will satisfy the data requirement for both applications. I will provide you with complete packages for this report once we prepare the packages for CDX.

Regards,

Cheryl Wagner

Wagner Regulatory Associates, Inc.

Telephone: (302) 635-7289

Fax: (302) 635-7295

**From:** Cheryl Wagner

**Sent:** Thursday, June 16, 2016 11:38 AM

**To:** Anna Armstrong <[Anna@wagnerreg.com](mailto:Anna@wagnerreg.com)>

**Subject:** FW: 75-day letter for 83529-LT and 83529-LA

Sharda Metolachlor letters

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]

**Sent:** Thursday, June 16, 2016 11:24 AM

**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>

**Cc:** James Wagner <[jmw@wagnerreg.com](mailto:jmw@wagnerreg.com)>; Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>

**Subject:** 75-day letter for 83529-LT and 83529-LA

Cheryl/Jim,

Attached are the 75-day deficiency letters for your new products 83529-LA and 83529-LT indicating that additional data are required for Guideline 830.1800 . Please acknowledge receipt of this e-mail. If you have any questions please let me know.

Thanks,  
Karen

Karen Samek

Registration Division

[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)

(703) 347-8825



**Samek, Karen**

---

**From:** Samek, Karen  
**Sent:** Thursday, July 07, 2016 12:08 PM  
**To:** 'Cheryl Wagner'  
**Cc:** Kathryn Montague; Kenny, Daniel  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

I have one other recommendation for the 83529-LT label for your consideration. [REDACTED]

[REDACTED] I'm recommending that the following may be useful to put on the label. I would be interested in your thoughts.

Thanks,

Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [mailto:[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)]  
**Sent:** Wednesday, July 06, 2016 3:21 PM  
**To:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Subject:** RE: Label for 83529-LA

Hi Karen,

We will get back to you on the Metolachlor [REDACTED] label probably tomorrow. Not really sure how to fix that one to make it a viable label in the market.

Will get back to you tomorrow on that one.....

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]  
**Sent:** Wednesday, July 06, 2016 3:07 PM  
**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
**Cc:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: Label for 83529-LA

Hi Cheryl,

Attached are my edits for your new product 83529-LA for your consideration. Please let me know if you have any questions.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [<mailto:cheryl@wagnerreg.com>]  
**Sent:** Wednesday, July 06, 2016 10:49 AM  
**To:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Cc:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: Label for 83529-LT

Hi Karen,

We are making the label changes and will get a revised label to you shortly.

██—am checking with Sharda as to what they want to do and will get back to you.

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]  
**Sent:** Wednesday, July 06, 2016 10:29 AM *Defining 1*  
**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
**Cc:** Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

\*Inert ingredient information may be entitled to confidential treatment\*

I'm finishing up the label reviews of your two metolachlor products and want to get my comments to you today. I'm attaching my comments for 83529-LT for your consideration. [REDACTED]  
Please give me a call when you can at 703-347-8825.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [<mailto:cheryl@wagnerreg.com>]  
**Sent:** Tuesday, July 05, 2016 2:48 PM  
**To:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Cc:** James Wagner <[jmw@wagnerreg.com](mailto:jmw@wagnerreg.com)>; Anna Armstrong <[Anna@wagnerreg.com](mailto:Anna@wagnerreg.com)>; Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>  
**Subject:** RE: 75-day letter for 83529-LT and 83529-LA

Hello Karen,

Attached is the report for Guideline 830.1800 for the pending metolachlor products—83529-LT and 83529-LA.

I will submit this report through CDX today/tomorrow morning. I wanted to get the report to you as soon as possible for forwarding to the EPA reviewer.

Karen, please note that this report will satisfy the data requirement for both applications. I will provide you with complete packages for this report once we prepare the packages for CDX.

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**

**From:** Cheryl Wagner  
**Sent:** Thursday, June 16, 2016 11:38 AM  
**To:** Anna Armstrong <[Anna@wagnerreg.com](mailto:Anna@wagnerreg.com)>  
**Subject:** FW: 75-day letter for 83529-LT and 83529-LA

Sharda Metolachlor letters

**From:** Samek, Karen [<mailto:Samek.Karen@epa.gov>]

**Sent:** Thursday, June 16, 2016 11:24 AM

**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>

**Cc:** James Wagner <[jmw@wagnerreg.com](mailto:jmw@wagnerreg.com)>; Montague, Kathryn V. <[Montague.Kathryn@epa.gov](mailto:Montague.Kathryn@epa.gov)>

**Subject:** 75-day letter for 83529-LT and 83529-LA

Cheryl/Jim,

Attached are the 75-day deficiency letters for your new products 83529-LA and 83529-LT indicating that additional data are required for Guideline 830.1800 . Please acknowledge receipt of this e-mail. If you have any questions please let me know.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**Samek, Karen**

---

**From:** Koch, Erin  
**Sent:** Thursday, July 07, 2016 3:25 PM  
**To:** Samek, Karen  
**Subject:** RE: Label for 83529-LT

[REDACTED]

**From:** Samek, Karen  
**Sent:** Thursday, July 07, 2016 3:14 PM  
**To:** Koch, Erin <Koch.Erin@epa.gov>  
**Subject:** RE: Label for 83529-LT

[REDACTED]

[REDACTED]

[REDACTED]

**From:** Koch, Erin  
**Sent:** Thursday, July 07, 2016 2:26 PM  
**To:** Samek, Karen <Samek.Karen@epa.gov>  
**Subject:** RE: Label for 83529-LT

Karen,

[REDACTED]

Thanks,  
Erin

**From:** Samek, Karen  
**Sent:** Thursday, July 07, 2016 1:13 PM  
**To:** Koch, Erin <Koch.Erin@epa.gov>  
**Subject:** FW: Label for 83529-LT

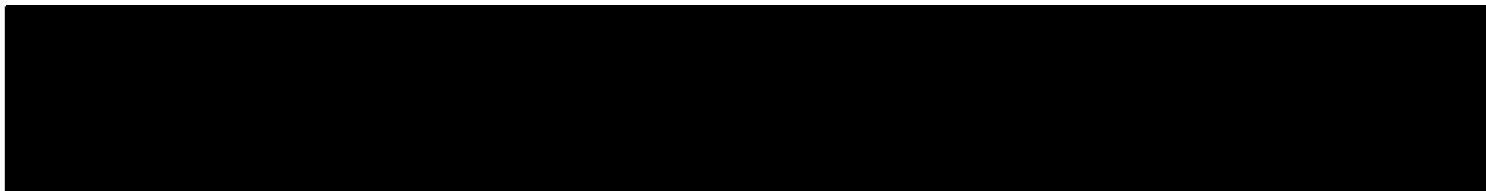
Erin,

\*Privileged attorney-client communication\*

\*Inert ingredient information may be entitled to confidential treatment\*

\*Privileged attorney-client communication\*

\*Inert ingredient information may be entitled to confidential treatment\*



Thanks,  
Karen

**From:** Cheryl Wagner [mailto:cheryl@wagnerreg.com]  
**Sent:** Thursday, July 07, 2016 12:36 PM  
**To:** Samek, Karen <Samek.Karen@epa.gov>  
**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>  
**Subject:** RE: Label for 83529-LT

Hi Karen,

It makes Sharda's label more restrictive than other competitor products.

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**

**From:** Samek, Karen [mailto:Samek.Karen@epa.gov]  
**Sent:** Thursday, July 07, 2016 12:08 PM  
**To:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>; Kenny, Daniel <Kenny.Dan@epa.gov>  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

I have one other recommendation for the 83529-LT label for your consideration. [REDACTED]

[REDACTED] I'm recommending that  
the following may be useful to put on the label. I would be interested in your thoughts.

[REDACTED]

Thanks,  
  
Karen

\*Inert ingredient information may be entitled to confidential treatment\*

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

---

**From:** Cheryl Wagner [<mailto:cheryl@wagnerreg.com>]  
**Sent:** Wednesday, July 06, 2016 3:21 PM  
**To:** Samek, Karen <[Samek.Karen@epa.gov](mailto:Samek.Karen@epa.gov)>  
**Subject:** RE: Label for 83529-LA

Hi Karen,

We will get back to you on the Metolachlor [REDACTED] label probably tomorrow. Not really sure how to fix that one to make it a viable label in the market.

Will get back to you tomorrow on that one.....

Regards,

*Cheryl Wagner*  
**Wagner Regulatory Associates, Inc.**  
**Telephone: (302) 635-7289**  
**Fax: (302) 635-7295**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

July 7, 2016

Ms. Cheryl Wagner  
Sharda USA LLC  
c/o Wagner Regulatory Associates, Inc  
P.O. Box 640  
Hockessin, DE 19707

Subject: Pre-decisional Determination for New Product  
Registration  
Product Name: Sharda Metolachlor 84.4EC-D  
EPA Registration Number: 83529-LT  
Application Date: 02/29/2016  
Decision Number: 514730

Dear Ms. Wagner:

The Agency has completed its review and assessment of your application pursuant to Section 33(b)(3) of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as amended by the Pesticide Registration Improvement Extension Act of 2012. The Agency has made a pre-decisional determination that your application cannot be approved unless revisions are made to the label. The necessary label changes are specified on the attached label.

Since there is limited time before the PRIA Decision Due Date expires, it is important to discuss any objections you have to these changes immediately and whether you will need to submit additional data for review. If these discussions determine that submitting data will be necessary, the PRIA decision due date may need to be renegotiated to allow sufficient time to address and resolve such differences. If the PRIA Decision Due Date is not renegotiated, and the label issues are not resolved before the PRIA Decision Due Date, the Agency will send a follow-up letter that will represent the Agency's decision to close out the PRIA decision review time. The follow-up letter will provide the following three options for continuing the review of the application:

- (a) Applicant agrees to all of the terms associated with the draft accepted label as revised by the Agency and requests that it be issued as the accepted final Agency-stamped label; or
- (b) Applicant does not agree to one or more of the terms of the draft accepted label as revised by the Agency and requests additional time to resolve the difference(s); or
- (c) Applicant withdraws the application without prejudice for subsequent resubmission, but forfeits the associated registration service fee.

If the applicant informs EPA that it has concerns as described under (b) above, the applicant will have up to 30 calendar days from the date of that follow-up letter to reach agreement with the

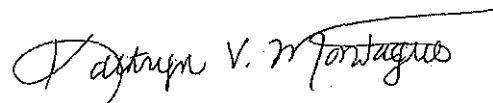


Agency on the final version of the label that the Agency will accept. If an agreement cannot be reached within those 30 days, EPA would intend to proceed with denial of the application.

If the applicant agrees to all of the terms of the accepted label as described in (a) above, or if the applicant and EPA resolve any differences as described in (b), the applicant must submit a revised label to EPA. EPA will then provide an accepted final Agency stamped label to the applicant within 2 business days following the applicant's written electronic confirmation of agreement to the Agency including the revised label to be stamped.

If you have any questions, please contact Karen Samek at [samek.karen@epa.gov](mailto:samek.karen@epa.gov) or (703) 347-8825.

Sincerely,

A handwritten signature in black ink, reading "Kathryn V. Montague". The signature is fluid and cursive, with a long horizontal line extending from the end of the name.

Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Attachments

**Samek, Karen**

---

**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Wednesday, July 06, 2016 10:49 AM  
**To:** Samek, Karen  
**Cc:** Montague, Kathryn V.  
**Subject:** RE: Label for 83529-LT

Hi Karen,

We are making the label changes and will get a revised label to you shortly.

[REDACTED]—am checking with Sharda as to what they want to do and will get back to you.

Regards,

*Cheryl Wagner*

**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**From:** Samek, Karen [mailto:Samek.Karen@epa.gov]  
**Sent:** Wednesday, July 06, 2016 10:29 AM — *Label Deficiency #1*  
**To:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Cc:** Montague, Kathryn V. <Montague.Kathryn@epa.gov>  
**Subject:** RE: Label for 83529-LT

Hi Cheryl,

I'm finishing up the label reviews of your two metolachlor products and want to get my comments to you today. I'm attaching my comments for 83529-LT for your consideration. [REDACTED]  
Please give me a call when you can at 703-347-8825.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**From:** Cheryl Wagner [mailto:cheryl@wagnerreg.com]  
**Sent:** Tuesday, July 05, 2016 2:48 PM  
**To:** Samek, Karen <Samek.Karen@epa.gov>  
**Cc:** James Wagner <jmw@wagnerreg.com>; Anna Armstrong <Anna@wagnerreg.com>; Montague, Kathryn V.

<Montague.Kathryn@epa.gov>

**Subject:** RE: 75-day letter for 83529-LT and 83529-LA

Hello Karen,

Attached is the report for Guideline 830.1800 for the pending metolachlor products—83529-LT and 83529-LA.

I will submit this report through CDX today/tomorrow morning. I wanted to get the report to you as soon as possible for forwarding to the EPA reviewer.

Karen, please note that this report will satisfy the data requirement for both applications. I will provide you with complete packages for this report once we prepare the packages for CDX.

Regards,

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**Wagner Regulatory Associates, Inc.**

**Telephone: (302) 635-7289**

**Fax: (302) 635-7295**

**From:** Cheryl Wagner

**Sent:** Thursday, June 16, 2016 11:38 AM

**To:** Anna Armstrong <Anna@wagnerreg.com>

**Subject:** FW: 75-day letter for 83529-LT and 83529-LA

Sharda Metolachlor letters

**From:** Samek, Karen [mailto:Samek.Karen@epa.gov]

**Sent:** Thursday, June 16, 2016 11:24 AM

**To:** Cheryl Wagner <cheryl@wagnerreg.com>

**Cc:** James Wagner <jmw@wagnerreg.com>; Montague, Kathryn V. <Montague.Kathryn@epa.gov>

**Subject:** 75-day letter for 83529-LT and 83529-LA

Cheryl/Jim,

Attached are the 75-day deficiency letters for your new products 83529-LA and 83529-LT indicating that additional data are required for Guideline 830.1800 . Please acknowledge receipt of this e-mail. If you have any questions please let me know.

Thanks,  
Karen

Karen Samek

Registration Division

Samek.karen@epa.gov



**FEE**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION  
OFFICE OF PESTICIDE PROGRAMS REGISTRATION DIVISION (7505P)

BARCODE No.: D 434547 FILE SYMBOL No: 83529-LT PRODUCT NAME: Sharda Metolachlor 84.4EC-D;  
DECISION No.: 514730; PC Code(s): 108801; ACTION CODE: R300; FOOD Use: Yes

~~This Document Contains Confidential Information~~

DATE OUT: July 8, 2016

SUBJECT: End Use Product Chemistry Review  
Product Name: Sharda Metolachlor 84.4EC

FROM: Indira Gairola / Product Chemistry Team (9) 07/08/16  
CITAB/RD (7505P) 8/20/16 7/12/16

TO: Karen Samek / Kathryn Montague RM 23  
Herbicide Branch / RD (7505P)

COMPANY: Sharda USA LLC

**INTRODUCTION:**

As per CITAB / Chemistry Team recommendation for the registration of the new end use product "Sharda Metolachlor 84.4EC-D". The registrant has submitted MRID # 498315-04 for Guideline: 830.1800 Validated Enforcement Analytical Method for the registration of the new end use product "Sharda Metolachlor 86.4EC". All the other product chemistry data was reviewed and determined acceptable. Details are listed in product chemistry review dated 04/20/16. CITAB has been asked to determine acceptability of the data submitted and the proposed CSF(s).

**SUMMARY OF FINDINGS:**

1. Name of Active Ingredient(s) Metolachlor (84.4%).

2. Has the registrant claimed substantial similarity to a registered product?

[x] Yes; [ ] No; [ ] NA; if yes give the registration number of the cited product.  
EPA Reg.No.66222-87

3. All of the source materials of the active ingredient are derived from registered sources- [x] Yes [ ] No

4. All inert ingredients have been screened by CITAB (Inert Team) and found to be approved for the proposed label uses - [x] Yes; [ ] No.

**BARCODE No.:** D 434547 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730; **PC Code(s):** 108801; **ACTION CODE:** R300; **FOOD Use:** Yes

5. Confidential Statement of Formula(s):

☒ Basic - Dated: 02/29/16  
Re-submitted - Dated: 02/29/16

☐ Alternate CSFs— Dated: ☒ NA

Alternate CSF(s) complies with 40CFR§152.43: ☐ Yes; ☐ No; ☒ NA

6. Product label

- a. Ingredient statement: Nominal concentration of AI listed on CSF(s) concurs with product label (PR Notice 91-2).  
☒ Yes, if not, explain below:

Is the sub statement in compliance with PR Notice 97-6 (inert ingredient vs other ingredient)  
☒ Yes; ☐ No; if not, explain below

Metallic equivalent: ☐ Yes ☒ NA;  
Soluble arsenic: ☐ Yes ☒ NA  
Isomeric ratios: ☐ Yes ☒ NA  
Acid Equivalent: ☐ Yes ☒ NA; acid equivalent =

- b. Health related sub statements: Product contains?

Petroleum distillate at > 10%: ☐ Yes; ☐ No; ☒ NA  
Methanol at > 4%: ☐ Yes; ☐ No; ☒ NA  
Sodium nitrate/sodium nitrite ☐ Yes; ☐ No; ☒ NA

- c. Physical chemical hazard statement: Product label requires a statement per 40 CFR §156.78 for: flammability, explosive potential or electric insulator breakdown?  
☒ Yes ☐ No

Is the sub statement in compliance with PR Notice 98-6 (Total Release Fogger)?  
☐ Yes; ☐ No; ☒ NA; if not, explain below

- d. Label requires an additional Storage and Disposal statement: ☐ Yes ☒ No; if yes explain below:

**BARCODE No.:** D 434547 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730 **PC Code(s):** 108801 **ACTION CODE:** R300; **FOOD Use:** Yes

7. **Group A: Product Chemistry Data**

CITAB's determination of the acceptability for the proposed product is listed in the tables below.

Guideline No.	Enforcement analytical method Study Title	Data submitted		CITAB's Assessment of Data	MRID Nos.
		Yes	No		
830.1800	Enforcement analytical method	X		Y	498315-04 Complete Validated method was provided See note below:

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver Request, I = In Progress,  
 NA = Not Applicable; U = Upgradeable.

1. If validation of analytical method is not provided, the data requirements should be "N" (Not Acceptable)

**NOTE.** Enforcement Analytical Method included linearity, accuracy, & specificity as recommended by the CITAB / Chemistry Team and determined acceptable.

**BARCODE No.:** D 434547 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730; **PC Code(s):** 108801; **ACTION CODE:** R300; **FOOD Use:** Yes

## CONCLUSIONS:

CITAB has reviewed the product chemistry data submitted/cited for the end-use product and has concluded that:

**A. Substantial similarity to the cited product (Reg. No, 66222-87) from Product chemistry view point**

- ☐ Similar
- ☒ Not similar, give reasons. The pH value and the inert ingredients are different.
- ☐ Identical
- ☐ Not identical
- ☐ Not applicable

**B. Confidential Statement of formula**

1. Corrected Basic CSF (dated 02/29/15)

- ☒ Acceptable
  - ☐ Not Acceptable
  - ☐ Not Applicable
- If not acceptable provide the reasons

2. Alternate CSFs

- ☐ Acceptable -
  - ☐ Not Acceptable -
  - ☒ Not Applicable
- If not acceptable give reasons

**C. Group A Product Chemistry Data**

- ☒ Acceptable - Guideline(s): 830.1800 Enforcement Analytical Method stated includes linearity, Accuracy & specificity and is determined acceptable.
- ☐ Not acceptable
- ☐ Acceptable.
- ☐ Not required
- ☐ Data cited

**D Product Label/Draft Label Yes [x]; No [ ] if yes, give recommendations below:-**

1. Since the product was determined to react with oxidizing agents the registrant is recommended to add the following statement under the heading Physical and Chemical hazards on the label. "Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur".



Receipt for Section 3

S: 988721

Milestone Email: jmw@wagnerreg.com

Regulatory Type: Product Registration - Section 3



Resubmission: ☒ Yes ☐ No

Fee For Service: ☐ Yes ☒ No

Billable: ☐ Yes ☒ No



Print Letter

Enter More Information

Tracking

Company: 83529 SHARDA USA LLC

Risk Manager: Registration Division, Risk Management Team 23



Product #: 83529-LT

Product Name: Sharda Metolachlor 84.4EC-D

Override#

Me Too Section3: 66222-87

Me Too Product Name: PARALLEL



Application Date: 06-Jul-2016



OPP Rec'd Date: 06-Jul-2016



Front End Date: 06-Jul-2016



Risk Manager Send Date:



FFS Due Date:

Negotiated Due Date:

OPP Target Date:

Fast Track ☒

New Ingredient: ☐

Receipt Description:

Portal submission pkg# 12626 Response to 75 day deficiency letter

Receipt Content

De

View/Edit

New Ingredient  
Request Date

New Ingredient  
Received Date

Form A ☐ Signature Date

Form B ☐ Signature Date

*Xalon*

JUL 12 2016

*Resub*

DOCUMENTUM

E-SUBMISSION

July 6<sup>th</sup>, 2016

Document Processing Desk  
ATTN: Kathryn Montague (PM 23)  
Registration Division (7505P)  
U.S. Environmental Protection Agency  
Office of Pesticide Programs  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202



**Re: Sharda Metolachlor 84.4EC-D (83529-LT) - Data Deficiency, 75-Day Response**

Dear Ms. Montague:

Wagner Regulatory Associates, Inc., as agent for Sharda USA LLC, respectfully submits data in response to EPA 75-Day Letter dated June 14<sup>th</sup>, 2016. Enclosed are the following documents:

- Letter from Sharda USA LLC, appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration (8570-1)
- Formulator's Exemption Statement (8570-27)
- Certification Statement (8570-34)
- Data Matrix, EPA internal and public (8570-35)
- EPA Data Deficiency Letter dated June 14<sup>th</sup>, 2016
- Data report as listed in the Transmittal Document

If you have any questions about this submission please contact the undersigned at (302) 635-7289 or [cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com).

Respectfully submitted,

Cheryl Wagner  
Agent for Sharda USA LLC

Enclosures

**DOCUMENTUM**

 United States <b>Environmental Protection Agency</b> Washington, DC 20460		Registration	OPP Identifier Number
		Amendment	
		✓ Other	
<b>Application for Pesticide - Section I</b>			
1. Company/Product Number 83529-LT		2. EPA Product Manager Kathryn Montague	
4. Company/Product (Name) Sharda USA LLC / Sharda Metolachlor 84.4EC-D		3. Proposed Classification <input checked="" type="checkbox"/> None      Restricted	
5. Name and Address of Applicant (Include Zip Code)  Sharda USA LLC c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707  <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No.  Product Name:	
<b>Section - II</b>			
<input type="checkbox"/> Amendment - Explain below. <input type="checkbox"/> Final printed labels in response to Agency letter dated _____ <input type="checkbox"/> Resubmission in response to Agency letter dated _____ <input type="checkbox"/> "Me Too" Application. <input type="checkbox"/> Notification - Explain below. <input checked="" type="checkbox"/> Other - Explain below.			
<b>Explanation:</b> Use additional page(s) if necessary. (For Section I and Section II.)  <b>Response to 75-day deficiency letter, dated June 14<sup>th</sup>, 2016.</b>			
<b>Section - III</b>			
1. <b>Material This Product Will Be Packaged In:</b>			
Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Unit Packaging wgt.      container	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes"      No. per Package wgt      container	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) HDPE lined bags
3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container 1, 2.5, 5 gallons	
5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product		6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Other ___ adhesive backed label ___ <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled	
<b>Section - IV</b>			
1. <b>Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)</b>			
Name Cheryl Wagner		Title Agent for Sharda USA, LLC  Telephone No. (Include Area Code) (302) 635-7789 Cheryl@wagnerreg.com	
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received  (Stamped)
2. Signature 		3. Title Agent for Sharda USA LLC	
4. Typed Name Cheryl Wagner		5. Date July 6 <sup>th</sup> , 2016	

**Samek, Karen**

---

**From:** Cheryl Wagner <cheryl@wagnerreg.com>  
**Sent:** Tuesday, July 05, 2016 2:48 PM  
**To:** Samek, Karen  
**Cc:** James Wagner; Anna Armstrong; Montague, Kathryn V.  
**Subject:** RE: 75-day letter for 83529-LT and 83529-LA  
**Attachments:** 49831504 - Analytical Method with Validation.pdf

Hello Karen,

Attached is the report for Guideline 830.1800 for the pending metolachlor products—83529-LT and 83529-LA.

I will submit this report through CDX today/tomorrow morning. I wanted to get the report to you as soon as possible for forwarding to the EPA reviewer.

Karen, please note that this report will satisfy the data requirement for both applications. I will provide you with complete packages for this report once we prepare the packages for CDX.

Regards,

*Cheryl Wagner*

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**Telephone: (302) 635-7289**

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**Sent:** Thursday, June 16, 2016 11:38 AM  
**To:** Anna Armstrong <Anna@wagnerreg.com>  
**Subject:** FW: 75-day letter for 83529-LT and 83529-LA

Sharda Metolachlor letters

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**To:** Cheryl Wagner <[cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com)>  
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**Subject:** 75-day letter for 83529-LT and 83529-LA

Cheryl/Jim,

Attached are the 75-day deficiency letters for your new products 83529-LA and 83529-LT indicating that additional data are required for Guideline 830.1800 . Please acknowledge receipt of this e-mail. If you have any questions please let me know.

Thanks,

Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825

**Samek, Karen**

---

**From:** postmaster@wagnerreg.com  
**To:** cheryl@wagnerreg.com  
**Sent:** Thursday, June 16, 2016 11:24 AM  
**Subject:** Delivered: 75-day letter for 83529-LT and 83529-LA

**Your message has been delivered to the following recipients:**

cheryl@wagnerreg.com (cheryl@wagnerreg.com)

Subject: 75-day letter for 83529-LT and 83529-LA

## Samek, Karen

---

**From:** Samek, Karen  
**Sent:** Thursday, June 16, 2016 11:24 AM  
**To:** cheryl@wagnerreg.com  
**Cc:** james@wagnerreg.com; Kathryn Montague  
**Subject:** 75-day letter for 83529-LT and 83529-LA  
**Attachments:** 83529-LA 75-day letter.pdf; 83529-LT 75-day letter.pdf

Tracking:	Recipient	Delivery
	cheryl@wagnerreg.com	
	james@wagnerreg.com	
	Kathryn Montague	Delivered: 6/16/2016 11:24 AM

Cheryl/Jim,

Attached are the 75-day deficiency letters for your new products 83529-LA and 83529-LT indicating that additional data are required for Guideline 830.1800 . Please acknowledge receipt of this e-mail. If you have any questions please let me know.

Thanks,  
Karen

Karen Samek  
Registration Division  
[Samek.karen@epa.gov](mailto:Samek.karen@epa.gov)  
(703) 347-8825



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Washington, D.C. 20460

OFFICE OF  
CHEMICAL SAFETY AND  
POLLUTION PREVENTION

June 14, 2016

OPP Decision Number: D-514730

Registrant Name: Ms. Cheryl Wagner  
Registrant Address: Sharda USA LLC  
c/o Wagner Regulatory Associates, Inc  
P.O. Box 640  
Hockessin, DE 19707

Subject: Data Deficiency  
Product Name: Sharda Metolachlor 84.4EC-D  
EPA File Symbol: 83529-LT  
Application Date: 02/29/2016  
EPA Receipt Date: 03/03/2016

Dear Ms. Wagner:

The Agency has received and begun its in-depth review of the subject application and has determined that it is incomplete or that further information is needed. This letter is a written notification of those deficiencies and identifies your options under 40 CFR 152.105 and Section 33 of the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), as amended by the Pesticide Registration Improvement Extension Act (PRIA 3). Your options under 40 CFR 152.105 and section 33 of FIFRA are addressed separately because each involves a different timeframe and set of options for responding to this letter. Please ensure that you consider each of the sections below in determining how and when you respond to this letter.

40 CFR 152.105:

As previously described in a telephone conversation on 6/14/2016, pursuant to 40 CFR 152.105, you are allowed 75 days from the date of this letter ending **August 29, 2016**, to provide a response concerning the deficiencies listed in this letter. Your response may include making corrections or additions to complete the application, or notifying the Agency of the date on which you expect to complete the application, or withdrawing your application. If you do not respond to this letter within 75 days or if you respond with a date on which you expect to complete the application but fail to meet that scheduled date, the Agency will treat the application as if you had withdrawn it. Withdrawal concludes the Agency's review of your application. Any subsequent submission of the same application must then be submitted as a new application with a new deadline for EPA to make a determination on your application and subject to a new registration service fee.

The deficiencies identified in the Agency's review at this time are:

1. Guideline study 830.1800 Enforcement Analytical method was found unacceptable because a complete validated method was not provided. The method stated does not include linearity and specificity. These details are required.



Further review of your application and your response to the deficiencies may identify additional deficiencies and you will be so informed.

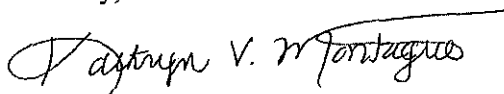
FIFRA Section 33/PRIA:

This application is also subject to a deadline for making a determination on the application under FIFRA Section 33, Pesticide Registration Service Fees, established under PRIA. The time frame for the Agency to make a determination on this application ends on July 25, 2016. Because the deadline for the agency to make a determination on this application expires before the end of the 75 days you have to respond to the deficiencies noted above, you have the following three options:

1. **Establish a new due date.** You may work with us to establish a new section 33/PRIA deadline that allows for an appropriate response to the 75 day letter. If you choose this option, you need to contact the Agency not later than June 30, 2016 to discuss a time frame that allows you to address the deficiencies listed above and the Agency to make a regulatory decision.
2. **Withdraw the application.** Alternatively, you may notify us not later than June 30, 2016, that you are withdrawing your application. **As noted above, withdrawal concludes the Agency's review** of your application; however, you may resubmit your application after the deficiencies have been addressed. Should you choose to resubmit your application, it would be subject to a new deadline for making a determination on your application and a new registration service fee - Since a fee was paid with this application, the Agency will provide any applicable refund as soon as practicable.
3. **Not respond.** If the Agency does not hear from you by **June 30, 2016**, the Agency in meeting its obligations under section 33/PRIA may issue a determination to not grant your application. While a determination to not grant an application would allow EPA to have met its obligation under section 33 of FIFRA to issue a determination by a specified date, this determination is neither a denial of the application pursuant to section 3(c)(6) of FIFRA or a withdrawal of the application. Thus, the Agency will continue to diligently work on any such application as long as EPA receives a response to a deficiency notice within the 75 days described above.

Please respond to this letter by June 30, 2016 by contacting Karen Samek at (703) 347-8825; [samek.karen@epa.gov](mailto:samek.karen@epa.gov) or Kathryn Montague at (703) 305-1243; [montague.kathryn@epa.gov](mailto:montague.kathryn@epa.gov) during the hours of 9:00 am to 5:00 pm EST with a response and for any questions concerning this letter. When submitting information or data in response to this letter, a copy of this letter should accompany the submission to facilitate processing.

Sincerely,



Kathryn Montague, Product Manager 23  
Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

Enclosure



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

**FEF**

OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION  
OFFICE OF PESTICIDE PROGRAMS REGISTRATION DIVISION (7505P)

**BARCODE No.:** D 432904 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730 **PC Code(s):** 108801 **ACTION CODE:** R300 **FOOD Use:** Yes

~~**This Document Contains Confidential Information**~~

**DATE OUT:** April 20, 2016

**SUBJECT:** End Use Product Chemistry Review  
Product Name: Sharda Metolachlor 84.4EC

**FROM:** Indira Gairola / Product Chemistry Team  
CITAB/RD (7505P)

**TO:** Karen Samek / Kathryn Montague RM 23  
Herbicide Branch / RD (7505P)

**COMPANY:** Sharda USA LLC

**INTRODUCTION:**

The registrant has submitted an application for the registration of the new end use product "Sharda Metolachlor 84.4EC-D". In support of the registration application, the registrant is submitting 830 series group A and group B product chemistry data with MRID No's. 498315-01 to -03. Applicant has submitted a corrected Basic CSF dated 02/29/16. Applicant claims the product to be similar to EPA Reg.No. 66222-87 CITAB has been asked to determine acceptability of the data submitted and the proposed CSF(s).

**SUMMARY OF FINDINGS:**

1. Name of Active Ingredient(s) Metolachlor (84.4%).

2. Has the registrant claimed substantial similarity to a registered product?

[x] Yes; [ ] No; [ ] NA; if yes give the registration number of the cited product.  
EPA Reg.No.66222-87

3. All of the source materials of the active ingredient are derived from registered sources- [x] Yes [ ] No

4. All inert ingredients have been screened by CITAB (Inert Team) and found to be approved for the proposed label uses - [x] Yes; [ ] No.

**BARCODE No.:** D 432904 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730: **PC Code(s):** 108801: **ACTION CODE:** R300; **FOOD Use:** Yes

5. Confidential Statement of Formula(s):

☒ Basic - Dated: 02/29/16

Re-submitted - Dated: 02/29/16

☐ Alternate CSFs- Dated: ☒ NA

Alternate CSF(s) complies with 40CFR§152.43: ☐ Yes; ☐ No; ☒ NA

6. Product label

- a. Ingredient statement: Nominal concentration of AI listed on CSF(s) concurs with product label (PR Notice 91-2).

☒ Yes, if not, explain below:

Is the sub statement in compliance with PR Notice 97-6 (inert ingredient vs other ingredient)

☒ Yes; ☐ No; if not, explain below

Metallic equivalent: ☐ Yes ☒ NA;

Soluble arsenic: ☐ Yes ☒ NA

Isomeric ratios: ☐ Yes ☒ NA

Acid Equivalent: ☐ Yes ☒ NA; acid equivalent =

- b. Health related sub statements: Product contains?

Petroleum distillate at > 10%: ☐ Yes; ☐ No; ☒ NA

Methanol at > 4%: ☐ Yes; ☐ No; ☒ NA

Sodium nitrate/sodium nitrite ☐ Yes; ☐ No; ☒ NA

- c. Physical chemical hazard statement: Product label requires a statement per 40 CFR §156.78 for: flammability, explosive potential or electric insulator breakdown?

☒ Yes ☐ No

Is the sub statement in compliance with PR Notice 98-6 (Total Release Fogger)?

☐ Yes; ☐ No; ☒ NA; if not, explain below

- d. Label requires an additional Storage and Disposal statement: ☐ Yes ☒ No; if yes explain below:

**BARCODE No.:** D 432904 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730; **PC Code(s):** 108801; **ACTION CODE:** R300; **FOOD Use:** Yes

7. Group A: Product Chemistry Data

CITAB's determination of the acceptability for the proposed product is listed in the tables below.

Guideline No.	Study Title		Data submitted		CITAB's Assessment of Data	MRID Nos.
			Yes	No		
830.1550	Product Identity & Composition		x		A	498315-01
830.1600	Description of materials used to produce the product		x		A	498315-01
830.1650	Description of formulation process		x		A	498315-01
830.1670	Discussion on the formation of impurities		x		A	498315-01
830.1700	Preliminary analysis				NA	
830.1750	Certified limits (158.350)	Standard certified limits				CSF dated 02/29/16
		Proposed Limits				
		Justification for wider limits	x		A	
830.1800	Enforcement analytical method		x		N	498315-03 Complete Validated method was not provided See note below

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver Request, I = In Progress, NA = Not Applicable; U = Upgradeable.

- If validation of analytical method is not provided, the data requirements should be "N" (Not Acceptable)  
Enforcement analytical method-Method does not include linearity & specificity, these details are required.

**BARCODE No.:** D 432904 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730: **PC Code(s):**108801: **ACTION CODE:** R300; **FOOD Use:** Yes

8. Group B:

Guideline No.	Study Title	Value or Qualitative Description	CITAB's Assessment of Data	MRID Nos.
830.6303	Physical State	liquid	A	498315-02
830.6314	Oxidation/Reduction	A temperature increase of 4°C. was observed in 5% KMnO4	A	498315-02
830.6315	Flammability	>230 °F	A	498315-02
830.6316	Explodability	Does not contain explosive ingredients	NA	
830.7000	pH	5.14 (corrected to 25 °C)1% (w/w) solution	A	498315-02
830.7100	Viscosity	101 centipoise at 25 °C 42.8 centipoise at 40 °C	A	498315-02
830.7300	Density (units)	1.110 g/cm <sup>3</sup> (9.26 pounds/gallon) at 25 °C 1.090 g/cm <sup>3</sup> (9.10 pounds/gallon) at 40 °C	A	498315-02
830.6317	Storage stability Or Accelerated storage stability	Accelerated storage stability showed acceptable recovery (84.34 %) of active ingredient	A	498315-03
830.6320	Corrosion characteristics or Accelerated corrosion characteristics	No changes in the appearance or integrity of the test or reserve container were observed over the storage interval.	A	498315-03

A = Acceptance, N = Not Acceptable, G = Data Gap, W = Waiver request, NA = Not applicable, I = In progress; U = Upgradeable.

**BARCODE No.:** D 432904 **FILE SYMBOL No:** 83529-LT **PRODUCT NAME:** Sharda Metolachlor 84.4EC-D;  
**DECISION No.:** 514730; **PC Code(s):** 108801; **ACTION CODE:** R300; **FOOD Use:** Yes

**CONCLUSIONS:**

CITAB has reviewed the product chemistry data submitted/cited for the end-use product and has concluded that:

**A. Substantial similarity to the cited product (Reg. No, 66222-87) from Product chemistry view point**

- ☐ Similar  
☒ Not similar, give reasons. The pH value and the inert ingredients are different.  
☐ Identical  
☐ Not identical  
☐ Not applicable

**B. Confidential Statement of formula**

1. Corrected Basic CSF (dated 02/29/15)  
☒ Acceptable  
☐ Not Acceptable ☐ Not Applicable  
If not acceptable provide the reasons

2. Alternate CSFs  
☐ Acceptable -  
☐ Not Acceptable -  
☒ Not Applicable  
If not acceptable give reasons

**C. Group A Product Chemistry Data**

- ☐ Acceptable  
☐ Not acceptable  
☒ Acceptable with the exception of Guideline(s): 830.1800 Enforcement Analytical method-Method stated does not include linearity & specificity. These details are required  
☐ Not required  
☐ Data cited

**D. Group B Product chemistry data**

- ☒ Acceptable  
☐ Not acceptable  
☐ Acceptable with the exception of Guideline(s):  
☐ Not required  
☐ Data cited

**A. Product Label/Draft Label Yes [x]; No [ ] If yes, give recommendations below:-**

1. Since the product was determined to react with oxidizing agents the registrant is recommended to add the following statement under the heading Physical and Chemical hazards on the label.  
"Do not mix or allow coming in contact with oxidizing agents. Hazardous chemical reaction may occur".



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY AND  
POLLUTION PREVENTION

OFFICE OF PESTICIDE PROGRAMS  
REGISTRATION DIVISION

23/MAR/2016

SIMILARITY CLINIC MEMORANDUM

Subject: Name of Pesticide Product: Sharda Metolachlor 84.4EC-D  
EPA Reg. No. /File Symbol: 83529-LT  
DP Barcode: D432445  
Decision No: 514730  
Action Code: R300  
PC Code: 108801 (metolachlor)

From: Eugenia McAndrew, Biologist *Eugenia McAndrew*

Through: John C. Redden, M.S., Senior Risk Assessor *JCR*  
Chemistry, Inerts and Toxicology Assessment Branch  
Registration Division (7505P)

To: Kathryn Montague, Risk Manager Team 23  
Herbicide Branch  
Registration Division (7505P)

Applicant: Sharda USA LLC  
c/o Wagner Regulatory Associates, Inc.  
P.O. Box 640  
Hockessin, DE 19707

FORMULATION FROM LABEL:

<u>Active Ingredient(s):</u>	<u>% by wt.</u>
Metolachlor	84.4
Other ingredients:	<u>15.6</u>
Total:	100.0

**ACTION REQUESTED:** Similarity determination for 83529-LT, proposed product, and 66222-87, cited product.

**BACKGROUND:** Sharda USA LLC has applied for registration of Sharda Metolachlor 84.4EC-D, EPA File Symbol 83529-LT, claiming to be substantially similar to Parallel, EPA Reg. No. 66222-87. Both products contain 84.4% metolachlor. The submission includes a basic CSF dated February 29, 2016, label, data matrix and company letter.

The registrant is using the cite all method of data support to satisfy the acute toxicity data requirements. After searching the OPP electronic databases, we were unable to locate any acute toxicity data for 66222-87 or any memos written regarding the acute toxicity of this product.

**RECOMMENDATIONS:**

1. We compared the basic CSFs and labels of the proposed product, 83529-LT, and the cited product, 66222-87, and determined that the two products are substantially similar.
2. Since we could not find acute toxicity data for 66222-87, we are unable to generate an acute toxicity profile for 83529-LT.
3. The signal word is Caution. We recommend that the proposed product use the same precautionary labeling as the cited product.
4. The proposed basic CSF submitted for 83529-LT must be reviewed and accepted by the product chemists in the Chemistry, Inerts and Toxicology Assessment Branch.



**21-Day Screen Completed by**  
**Contractor**

**21-Day Expires on** 3/24/16

**Jacket #** 83529-LT

**MRID#** 448315

**Content Screen:** Recommend to Pass/Fail

**11-3 Review:** Pass/Fail/NA

**Overall Status:** Recommend to Pass/Fail

**Transfer This Jacket to:**

Steve Schaible

# PRIA 3 – 21 Day Content Screen Review Worksheet

(EPA/OPP Use Only)

September 2012

21 Day Screen Start Date: 3-3-16

Experts In-Processing Signature: B.B. Date 3-9-16 Fee Paid: Yes ☒

Division management contacted on issues No ☐ Yes ☐ Date \_\_\_\_\_

EPA Reg. Number: <u>83529-LT</u>		EPA Receipt Date: <u>3-3-16</u>				
Items for Review				Yes	No	N/A*
1	Application Form (EPA Form 8570-1) signed & complete including package type			X		
2	Confidential Statement of Formula all boxes completed, form signed, and dated (EPA Form 8570-4)			X		
	a) All inerts, including fragrances, approved for the proposed uses (see Footnote A)	yes	no			
		X				
3	Certification with Respect to Citation of Data (EPA Form 8570-34) completed and signed (N/A if 100% repack)			X		
	Certificate and data matrix consistent			X		
	If applicant is relying on data that are compensable, is the offer to pay statement included. (see Footnote B)	yes	no			
	If applicable, is there a letter of Authorization for exclusive use only.					
4	Formulator's Exemption Statement (EPA Form 8570-27) completed and signed (N/A if source is unregistered or applicant owns the technical)			X		
	Data Matrix (EPA Form 8570-35) both internal and external copies (PR 98-5) completed and signed (N/A if 100% repack)			X		
5	a) Selective Method (Fee category experts use)	yes	no			
		X				
	b) Cite-All (Fee category experts use)					
	c) Applicant owns all data (Fee category experts use)					
6	5 Copies of Label (Electronic labels on CD are encouraged and guidance is available)			X		
7	Is the data package consistent with PR Notice 86-5			X		
8	Notice of Filing included with petitions					X

9	If applicable for conventional applications, <u>reduced risk rationale</u>			X
	<u>Required Data</u> and/or data waivers. See Footnote C.			
10	a) List study (or studies) not included with application			

**Comments:**

Documentation: Pass / Fail  
 - Required forms are complete

Inerts: Pass / Fail  
 - Inerts approved for food use under 40 CFR 180.920, are harvest application to growing crops  
 [REDACTED]

PRN 11-3: Pass / Fail  
 MRID: 498315

Overall Status: Pass / Fail

SM 3/18/16

\* N/A – Not Applicable

#### Footnotes

A. During the 21 day initial content review, all CSFs will be reviewed to determine whether all inerts listed, including fragrances, are approved for the proposed uses or have an application pending with the Agency. If an unapproved inert with no application pending with the Agency is identified, the applicant must either 1) resolve the inert issue by, for example, removing the inert, substituting it with an approved inert, submitting documentation that EPA approved the inert for the proposed pesticidal uses, correcting mistakes on the CSF, etc. or 2) provide the data to support OPP approval of the inert or 3) withdraw the application. Removing or substituting an inert ingredient will require a new CSF and may require submission of data. All information, forms, data and documentation resolving the inert issue must have been received by the Agency or the application withdrawn within the 21 day period, otherwise, the Agency will reject the application as described below.

To successfully complete this aspect of the 21 day initial content screen, applicants are **strongly encouraged** to verify that all inert ingredients have been approved for the application's uses or have an application pending with the Agency **even if a product is currently registered** by consulting the inert Web site and if the inert is not approved nor has an application pending with the Agency, to **obtain the necessary inert approval prior to submitting an application to register a pesticide product containing that inert ingredient**. Some inert ingredients are no longer approved for food uses or certain types of uses. The name and/or CAS number on a CSF must match the name and CAS number on this web site. Simple typographical errors in the name or CAS number have resulted in processing delays.

If an inert is not listed on the inert ingredient web site and the applicant believes that the inert has been approved, the applicant should contact the Inert Ingredient Assessment Branch (IIAB) at [inertsbranch@epa.gov](mailto:inertsbranch@epa.gov) and resolve the issue. Copies of the correspondence with IIAB resolving the issue should accompany the application. All new inerts except PIP inerts are reviewed by IIAB. The IIAB should also be contacted for any questions on what supporting data needs to be submitted for and the Agency's inert review process. Questions on PIP inerts should be directed to the Chief of Microbial Pesticides Branch.

When a brand, trade, or proprietary name of an inert ingredient is listed on a CSF, additional information such as an alternate name of the inert, CAS number or other information must also be included to enable the Agency to determine if it has been approved. Each component of an inert mixture (including a fragrance) must be identified. In some cases, the supplier of the mixture or fragrance may need to provide this information to the Agency. Prior to the Agency's receipt of an application, applicants must arrange with a proprietary mixture or fragrance supplier to provide the component information to the Agency or promptly upon EPA's request. If the inert ingredients in a proprietary blend (including fragrances) cannot or are not identified or provided within the 21-day content review period, the Agency will reject the application.

During the 21 day content review, applicants should submit information to the individual identified by the Agency when the applicant is informed of an unapproved inert.

### **Unapproved Inerts Identified on CSFs**

#### **All applications except conventional new products and PIPs**

Once an unapproved inert is identified on a CSF, the Agency will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Provide the required information necessary to identify an inert approval application that is pending with the Agency; or
3. Submit the information and data needed for the Agency to approve the unapproved inert. If this option is selected and implemented, the Agency may request an extension in the PRIA decision review timeframe to accommodate the inert review/approval process;
4. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of these options is selected and implemented by the applicant within the 21 day content review period, the Agency will reject the application and retain 25% of the full fee of the category identified.

#### **Conventional New Product Applications**

When the Registration Division identifies an unapproved inert on a CSF with an application for a new product that the applicant has not identified as requiring an inert approval (R300 or R301), it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the inert's identity or CAS number, providing documentation that the inert has been approved, or removing the unapproved inert from the CSF or replacing it with one that is approved for the application's uses; or
2. Submit the information and data needed for the Agency to approve the unapproved inert, including any required petition to establish or amend a tolerance or exemption from a tolerance. (This option may change the PRIA category for the application, which could require a longer decision review time and a larger fee. If additional fees are due, they must be received by the Agency within the 21 day content review period.)

3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21-day content-review period, the Agency will reject the application and retain 25% of the appropriate fee for the new product-inert approval category.

#### PIP Applications

When the Biopesticide and Pollution Prevention Division identifies an unapproved inert on a PIP CSF and a request to approve the inert does not accompany the application, it will contact the applicant with the following options:

1. Correct the application by, for instance, correcting the spelling or name of the inert to that in 40 CFR 174, or providing documentation that the inert has been approved; or
2. Submit the information and data needed for the Agency to approve the unapproved inert. If an inert ingredient tolerance exemption petition is required, the petition must be received by the Agency and the B903 fee paid within the 21 day period. If this option is selected and implemented, the Agency will discuss harmonizing the timeframe for both actions.
3. Withdraw the application (the Agency retains 25% of the full fee for the fee category estimated); or

If none of the above options is selected and implemented during the 21 day content review period, the Agency will reject the application and retain 25% of the fee.

B. A policy on documentation of offers to pay is still being developed, however, for a me-too or fast track (similar/identical) new product, R300 or A530, an application without the necessary authorizations of offers to pay will be placed into either R301 or A531. The Agency recommends that authorizations of offers to pay be submitted with other PRIA applications to avoid delays in the Agency's decision.

C. Biopesticide applicants are advised to contact the Agency and discuss study waivers prior to submitting their application to the Agency. Documentation of such discussions should be submitted with the study waiver.

## R300 and 301

100% identical (repack): YES or (NO) (circle one)

{If **yes**, it's a 100% repack - then product chemistry, acute toxicity and efficacy data are not required}

Data on Group A and B must be submitted - Group A and B can not be cited.

Guideline No.	Group A: Product Chemistry Data Study Title	Data submitted	
		Yes	No
830.1550	Product Identity & Composition	X	
830.1600	Description of materials used to produce the product	X	
830.1650	Description of formulation process	X	
830.1670	Discussion on the formation of impurities	X	
830.1700	Preliminary analysis	X	
830.1750	Certified limits (158.345)	X	
830.1800	Enforcement analytical method	X	

Guideline No.	Group B: Product Chemistry Data Study Title	Data submitted	
		Yes	No
830.6302	Color	X	
830.6303	Physical State	X	
830.6304	Odor	X	
830.6314	Oxidation/Reduction (Chemical incompatibility)	X	
830.6315	Flammability	X	
830.6316	Explosibility	X	
830.6317	Storage stability	X	
830.6319	Miscibility	X	
830.6320	Corrosion Characteristics	X	
830.6321	Dielectric Breakdown voltage	X	
830.7000	pH	X	
830.7100	Viscosity	X	
830.7300	Density	X	

## R 300 and 301

New products must provide a bridging rationale document. The bridging document directs OPP to use a currently registered set of 6 acute toxicity data and label; instead of submitting product specific data.

Guideline No.	Acute toxicity (6 pack) Study Title	Cited	
		Yes	No
870.1100	Acute Oral (LD50)	X	
870.1200	Acute Dermal (LD50)	X	
870.1300	Acute Inhalation (LC50)	X	
870.2400	Acute Eye Irritation	X	
870.2500	Acute Dermal Irritation	X	
870.2600	Dermal Sensitization	X	

Efficacy – which guideline depends on the proposed label use and they must cite the data to be used for the bridging rationale.

Guideline No.	Efficacy Study Titles	Cited		Comments
		Yes	No	
810.3100	Soil Treatments for Imported Fire Ants			N/A
810.3200	Livestock, Poultry, Fur and Wool-Bearing Animal Treatments			N/A
810.3300	Treatments to Control Pests of Humans and Pets			N/A
810.3400	Mosquito, Black Fly, and Biting Midge (Sand Fly) Treatments			N/A
810.3500	Premises Treatments			N/A
810.3600	Structural Treatments			N/A
810.3800	Methods for Efficacy Testing of Termite Baits			N/A





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

March 8, 2016

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

OPP Decision Number: D-514730  
EPA File Symbol or Registration Number: 83529-LT  
Product Name: Sharda Metolachlor 84.4EC-D  
EPA Receipt Date: 03-Mar-2016  
EPA Company Number: 83529  
Company Name: SHARDA USA LLC

CHERYL WAGNER  
WAGNER REGULATORY ASSOCIATES, INC.  
SHARDA USA LLC  
PO Box 640  
HOCKESSIN, DE 19707-

SUBJECT: Receipt of Registration Application Subject to Registration Service Fee

Dear Registrant:

The Office of Pesticide Programs has received your application and certification of payment. If you submitted data with this application, the results of the PRN-2011-3 screen will be communicated separately. During the administrative screen, the Office of Pesticide Programs has determined that this Action is subject to a Pesticide Registration Service Fee as defined in the Pesticide Registration Improvement Act.

The Action has been identified as Action Code: R300

NEW PRODUCT;OR SIMILAR COMBINATION PRODUCT (ALREADY REGISTERED) TO AN IDENTICAL OR SUBSTANTIALLY SIMILAR IN COMPOSITION AND USE TO A REGISTERED PRODUCT;REGISTERED SOURCE OF ACTIVE INGREDIENT;NO DATA REVIEW ON ACUTE TOXICITY, EFFICACY OR CRP - ONLY PRODUCT CHEMISTRY DATA;CITE-ALL DATA CITATION, OR SELECTIVE DATA CITATION WHERE APPLICANT OWNS ALL REQUIRED DATA, OR APPLICANT SUBMITS SPECIFIC AUTHORIZATION LETTER FROM DATA OWNER;CATEGORY ALSO INCLUDES 100% RE-PACKAGE OF REGISTERED END-USE OR MANUFACTURING-USE PRODUCT THAT REQUIRES NO DATA SUBMISSION NOR DATA MATRIX;

No additional payment is due at this time.

If you have any questions, please contact the Pesticide Registration Service Fee Ombudsman at (703) 308-9362.

Sincerely,

*Neresa Brown*  
Front End Processing Staff

Information Technology & Resources Management Division

# Fee for Service

{9822568~

This package includes the following

- ☒ New Registration
- ☐ Amendment

☒ Studies? ☐ Fee Waiver?

☐ volpay % Reduction: \_\_\_\_

for Division

- ☐ AD
- ☐ BPPD
- ☒ RD

Risk Mgr. 23

Receipt No.

S- 982256

EPA File Symbol/Reg. No.

83529-LT

Pin-Punch Date:

3/3/2016

☐ This item is NOT subject to FFS action.

## Action Code:

Requested: R300

Granted: R300

Amount Due: \$ 1,582

## Parent/Child Decisions:

☒ Inert Cleared for Intended Use

☐ Uncleared Inert in Product

Reviewer: 

Date: 3/8/16

Remarks:

DOCUMENTUM

Receipt for Section 3	
S: 982256	Milestone Email: jmw@wagnerreg.com
Regulatory Type: Product Registration - Section 3	Resubmission: <input type="radio"/> Yes <input checked="" type="radio"/> No
Application Type: New Registration	Fee For Service: <input checked="" type="radio"/> Yes <input type="radio"/> No
Company: 83529 SHARDA USA LLC	Billable: <input checked="" type="radio"/> Yes <input type="radio"/> No
Risk Manager: Registration Division Risk Management Team 23	V
Product #: 83529-LT	Product Name: Sharda Metolachlor 84.4EC-D
Override#	
Me Too Section 3: 66222-87	Me Too Product Name: PARALLEL
Application Date: 29-Feb-2016	OPP Recvd Date: 03-Mar-2016
Front End Date: 03-Mar-2016	Risk Manager Send Date:
FFS Due Date:	Negotiated Due Date:
OPP Target Date:	
Fast Track: <input type="checkbox"/>	New Ingredient: <input type="checkbox"/>
Receipt Description: Portal submission pkg. #10317. Registration of a new end-use product.	
Form A: <input type="checkbox"/>	Signature Date:
Form B: <input type="checkbox"/>	Signature Date:

Print Letter

Enter More Information

Tracking

Receipt Content

Study

CSF

View/Edit

## Cheryl Wagner

---

**From:** notification@pay.gov  
**Sent:** Monday, February 29, 2016 11:38 AM  
**To:** Cheryl Wagner  
**Subject:** Pay.gov Payment Confirmation: PRIA Service Fees

Your payment has been submitted to Pay.gov and the details are below. If you have any questions regarding this payment, please contact Michael Yanchulis at (703) 347-0237 or [yanchulis.michael@epa.gov](mailto:yanchulis.michael@epa.gov).

Application Name: PRIA Service Fees  
Pay.gov Tracking ID: 25Q6SP4G  
Agency Tracking ID: 74967904491  
Transaction Type: Sale  
Transaction Date: 02/29/2016 11:38:21 AM EST

Account Holder Name: Cheryl R. Wagner

Transaction Amount: \$1,582.00  
Card Type: AmericanExpress  
Card Number: \*\*\*\*\*2008

Registration Number:  
Company Name: Sharda USA LLC  
Company Number: 83529  
Action Code: R300

THIS IS AN AUTOMATED MESSAGE. PLEASE DO NOT REPLY.

DOCUMENTUM



United States  
**Environmental Protection Agency**  
 Washington, DC 20460  
**Formulator's Exemption Statement**  
 (40 CFR 152.85)

Applicant's Name and Address <b>Sharda USA LLC</b> c/o Wagner Regulatory Associates P.O. Box 640 Hockessin, DE 19707	EPA File Symbol/Registration Number <b>83529-XX</b>
	Product Name <b>Sharda Metolachlor 84.4EC-D</b>
	Date of Confidential Statement of Formula (EPA Form 8570-4) <b>02/29/2016</b>

As an authorized representative of the applicant for registration of the product identified above, I certify that:

(1) This product contains the following active ingredient(s):

**Metolachlor**

(2) Of these, each active ingredient listed in paragraph (4) is present solely as the result of the use of that active ingredient in the manufacturing, formulation or repackaging another product which contains that active ingredient which is registered under FIFRA Section 3, is purchased by us from another person and meets the requirements of 40 CFR section 158.50(e)(2) or (3).

(3) Indicate by checking (A) or (B) below which paragraph applies:

☒ (A) An accurate Confidential Statement of Formula (EPA FORM 8570-4) for the above identified product is attached to this statement. That formula statement indicates, by company name, registration number, and product name, the source of the active ingredient(s) listed in paragraph (1).

OR

☐ (B) The Confidential Statement of Formula (CSF)(EPA Form 8570-4) referenced above and on file with the EPA is complete, current, an accurate and contains the information required on the current CSF.

(4) The following active ingredients in this product qualify for the formulator's exemption.

Source		
Active Ingredient	Product Name	Registration Number
Metolachlor	[REDACTED]	[REDACTED]
Signature <i>Cheryl R. Wagner</i>	Name and Title Cheryl R Wagner, Agent	Date 02/29/2016

EPA Form 8570-27 (Rev. 06-2004)

Copy 1 - EPA  
 Copy 2 - Applicant copy

DOCUMENTUM



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
**1200 Pennsylvania Avenue, N.W.**  
**WASHINGTON, D.C. 20460**

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 1.25 hours per response for registration and 0.25 hours per response for reregistration and special review activities, including time for reading the instructions and completing the necessary forms. Send comments regarding burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, Collection Strategies Division (2822T), U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, N.W., Washington, DC 20460. Do not send the completed form to this address.

**Certification with Respect to Citation of Data**

Applicant's/Registrant's Name, Address, and Telephone Number  
 Sharda USA LLC c/o WRA, Inc., P.O. Box 640, Hockessin, DE 19707

EPA Registration Number/File Symbol  
 83529-XX

Active Ingredient(s) and/or representative test compound(s)  
 Metolachlor

Date  
 February 17, 2016

General Use Pattern(s) (list all those claimed for this product using 40 CFR Part 158)  
 Terrestrial Non-Food

Product Name  
 Sharda Metolachlor 84.4% [REDACTED]

**NOTE:** If your product is a 100% repackaging of another purchased EPA-registered product labeled for all the same uses on your label, you do not need to submit this form. You must submit the Formulator's Exemption Statement (EPA Form 8570-27).

☐ I am responding to a Data-Call-In Notice, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

**SECTION I: METHOD OF DATA SUPPORT (Check one method only)**

☐ I am using the cite-all method of support, and have included with this form a list of companies sent offers of compensation (the Data Matrix form should be used for this purpose).

☒ I am using the selective method of support (or cite-all option under the selective method), and have included with this form a completed list of data requirements (the Data Matrix form must be used).

**SECTION II: GENERAL OFFER TO PAY**

[Required if using the cite-all method or when using the cite-all option under the selective method to satisfy one or more data requirements]

☒ I hereby offer and agree to pay compensation, to other persons, with regard to the approval of this application, to the extent required by FIFRA.

**SECTION III: CERTIFICATION**

I certify that this application for registration, this form for reregistration, or this Data-Call-In response is supported by all data submitted or cited in the application for registration, the form for reregistration, or the Data-Call-In response. In addition, if the cite-all option or cite-all option under the selective method is indicated in Section I, this application is supported by all data in the Agency's files that (1) concern the properties or effects of this product or an identical or substantially similar product, or one or more of the ingredients in this product; and (2) is a type of data that would be required to be submitted under the data requirements in effect on the date of approval of this application if the application sought the initial registration of a product of identical or similar composition and uses.

I certify that for each exclusive use study cited in support of this registration or reregistration, that I am the original data submitter or that I have obtained the written permission of the original data submitter to cite that study.

I certify that for each study cited in support of this registration or reregistration that is not an exclusive use study, either: (a) I am the original data submitter; (b) I have obtained the permission of the original data submitter to use the study in support of this application; (c) all periods of eligibility for compensation have expired for the study; (d) the study is in the public literature; or (e) I have notified in writing the company that submitted the study and have offered (i) to pay compensation to the extent required by sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA; and (ii) to commence negotiations to determine the amount and terms of compensation, if any, to be paid for the use of the study.

I certify that in all instances where an offer of compensation is required, copies of all offers to pay compensation and evidence of their delivery in accordance with sections 3(c)(1)(F) and/or 3(c)(2)(B) of FIFRA are available and will be submitted to the Agency upon request. Should I fail to produce such evidence to the Agency upon request, I understand that the Agency may initiate action to deny, cancel or suspend the registration of my product in conformity with FIFRA.

I certify that the statements I have made on this form and all attachments to it are true, accurate, and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

Signature

*Cheryl R. Wagner*

Date

2/17/2016

Typed or Printed Name and Title

Cheryl Wagner, Agent for Sharda USA LLC

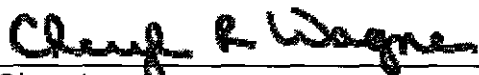
# Certification with Respect to Label Integrity

version: 9/11/02

I certify that the information (including, but not limited to, text, tables, and graphics) contained in the electronic file identified below by file name and submitted with this certification is the same information as that on the paper copies of these documents included with this submission.

PROPOSED LABEL		
EPA Registration #	Date Submitted to EPA	Electronic file name
83529-XX	Feb. 29, 2016	83529-000XX.20160229.V1

I certify that the statements that I have made on this form are true, accurate, and complete. I acknowledge that any knowingly false or misleading statements may be punishable by fine or imprisonment or both under applicable law.



Signature

Date: Feb. 29, 2016

Cheryl Wagner  
Name (typed)

Agent for Sharda USA LLC  
Title

DOCUMENTUM



## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Form Approved OMB No. 2070-0060

401 M Street, S.W.

WASHINGTON, D.C. 20460

**Paperwork Reduction Act Notice:** The public reporting burden for this collection of information is estimated to average 0.25 hours per response for registration activities and 0.25 hours per response for reregistration and special review activities, including time for reading the instruction and completing the necessary forms. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing the burden to: Director, OPPE Information Management Division (2137), U.S. Environmental Protection Agency, 401 M Street, S.W., Washington DC 20460. Do not send the form to this address.

## DATA MATRIX

Date: February 29, 2016

EPA Reg No./ File Symbol: 83529-XX

Page 1 of 2

## Applicant's/Registrant's Name and Address:

Sharda USA LLC, c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707

## Product:

Sharda Metolachlor 84.4EC-D

Ingredient: Metolachlor

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT SPECIFIC	PRODUCT SPECIFIC DATA				
830.1550	Product Identity and Composition	49831501	Sharda USA LLC	OWN	
830.1600	Description of Materials Used to Produce the Product	49831501	Sharda USA LLC	OWN	
830.1650	Description of Formulation Process	49831501	Sharda USA LLC	OWN	
830.1670	Discussion of Formation of Impurities	49831501	Sharda USA LLC	OWN	
830.1700	Preliminary Analysis		Sharda USA LLC	WAI	1
830.1750	Certified Limits	49831501	Sharda USA LLC	OWN	
830.1800	Enforcement Analytical Method	49831503	Sharda USA LLC	OWN	
830.6302	Color	49831502	Sharda USA LLC	OWN	
830.6303	Physical State	49831502	Sharda USA LLC	OWN	
830.6304	Odor	49831502	Sharda USA LLC	OWN	
830.6313	Stability to Normal and Elevated Temperatures		Sharda USA LLC	WAI	1
830.6314	Oxidation/Reduction: Chemical Incompatibility	49831502	Sharda USA LLC	OWN	
830.6315	Flammability	49831502	Sharda USA LLC	OWN	
830.6316	Explosibility		Sharda USA LLC	WAI	2
830.6317	Storage Stability	49831503	Sharda USA LLC	OWN	
830.6319	Miscibility		Sharda USA LLC	WAI	3
830.6320	Corrosion Characteristics	49831503	Sharda USA LLC	OWN	
830.6321	Dielectric Breakdown Voltage		Sharda USA LLC	WAI	4
830.7000	pH	49831502	Sharda USA LLC	OWN	
830.7100	Viscosity	49831502	Sharda USA LLC	OWN	
830.7300	Density/Relative Density/Bulk Density	49831502	Sharda USA LLC	OWN	

DOCUMENTUM

Signature

Name and Title

James Wagner

Date:

February 29, 2016





UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

Form Approved OMB No. 2070-0060

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**DATA MATRIX**

Date: February 29, 2016	EPA Reg No./ File Symbol: 83529-XX	Page 2 of 2
Applicant's/Registrant's Name and Address: Sharda USA LLC, c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707	Product: Sharda Metolachlor 84.4EC-D	
Ingredient: Metolachlor		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
830.7520	Particle size, fiber length, and diameter distribution		Sharda USA LLC	WAI	5
870.1100	Acute oral toxicity	Cite all	Syngenta Crop Protection, Greensboro, NC	Pay	
870.1200	Acute dermal toxicity		E.I. Du Pont De Nemours & Company, Wilmington, DE		
870.1300	Acute Inhalation toxicity		Adama Makhteshim Ltd., Raleigh, NC		
870.2400	Eye irritation		Adama Agan, Ltd., Raleigh, NC		
870.2500	Dermal irritation		Drexel Chemical Co., Memphis, TN		
870.2600	Dermal sensitization		Loveland Products, Inc., Greeley, CO		
			Albaugh,, LLC, Valdosta, GA		
			Sipcam Agro USA, Inc., Durham, NC		
			Makhteshim Agan of North America, Inc., Raleigh, NC		
			Cheminova, Inc., Arlington, VA		
			Helm Agro US, Inc., West Chester, PA		
			Metolachlor Task Force, Washington, DC		

- 1) 830.1700: Preliminary Analysis & 830.6313 Stability to normal and elevated temperatures not required for end-use products.
- 2) 830.6316: Sharda Metolachlor 86.4EC does not contain explosive properties; therefore is data is not required.
- 3) 830.6319: Miscibility: Sharda Metolachlor 86.4EC is not mixed with petroleum solvents; therefore this data is not required.
- 4) 830.6321: Dielectric Voltage Breakdown: Sharda Metolachlor 86.4EC is not used around electrical equipment; therefore, this data is not required.
- 5) 830.7520: Particle Size, Fiber Length, and Diameter Distribution: Not required for end-use product.

<b>Signature</b> 	<b>Name and Title</b> James Wagner	<b>Date:</b> February 29, 2016
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## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Form Approved OMB No. 2070-0060

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WASHINGTON, D.C. 20460

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## DATA MATRIX

Date: February 29, 2016

EPA Reg No./ File Symbol: 83529-XX

Page 1 of 2

## Applicant's/Registrant's Name and Address:

Sharda USA LLC, c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707

## Product:

Sharda Metolachlor 84.4EC-D

Ingredient: Metolachlor

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
PRODUCT SPECIFIC	PRODUCT SPECIFIC DATA				
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	WAI	1
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	WAI	1
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	
			Sharda USA LLC	WAI	2
			Sharda USA LLC	OWN	
			Sharda USA LLC	WAI	3
			Sharda USA LLC	OWN	
			Sharda USA LLC	WAI	4
			Sharda USA LLC	OWN	
			Sharda USA LLC	OWN	

Signature

Name and Title

James Wagner

Date:

February 29, 2016



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
401 M Street, S.W.  
WASHINGTON, D.C. 20460

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**DATA MATRIX**

<b>Date:</b> February 29, 2016	<b>EPA Reg No./ File Symbol:</b> 83529-XX	Page 2 of 2
<b>Applicant's/Registrant's Name and Address:</b> Sharda USA LLC, c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707	<b>Product:</b> Sharda Metolachlor 84.4EC-D	
<b>Ingredient:</b> Metolachlor		

Guideline Reference Number	Guideline Study Name	MRID Number	Submitter	Status	Note
			Sharda USA LLC	WAI	5
			Syngenta Crop Protection, Greensboro, NC	Pay	
			E.I. Du Pont De Nemours & Company, Wilmington, DE		
			Adama Makhteshim Ltd., Raleigh, NC		
			Adama Agan, Ltd., Raleigh, NC		
			Drexel Chemical Co., Memphis, TN		
			Loveland Products, Inc., Greeley, CO		
			Albaugh, LLC, Valdosta, GA		
			Sipcam Agro USA, Inc., Durham, NC		
			Makhteshim Agan of North America, Inc., Raleigh, NC		
			Cheminova, Inc., Arlington, VA		
			Helm Agro US, Inc., West Chester, PA		
			Metolachlor Task Force, Washington, DC		

- 1) 830.1700: Preliminary Analysis & 830.6313 Stability to normal and elevated temperatures not required for end-use products.
- 2) 830.6316: Sharda Metolachlor 86.4EC does not contain explosive properties; therefore data is not required.
- 3) 830.6319: Miscibility: Sharda Metolachlor 86.4EC is not mixed with petroleum solvents; therefore this data is not required.
- 4) 830.6321: Dielectric Voltage Breakdown: Sharda Metolachlor 86.4EC is not used around electrical equipment; therefore, this data is not required.
- 5) 830.7520: Particle Size, Fiber Length, and Diameter Distribution: Not required for end-use product.

<b>Signature</b> 	<b>Name and Title</b> James Wagner	<b>Date:</b> February 29, 2016
----------------------	---------------------------------------	-----------------------------------



United States  
**Environmental Protection Agency**  
 Washington, DC 20460

☒  
☐  
☐

**Registration**  
**Amendment**  
**Other**

OPP Identifier Number

**Application for Pesticide - Section I**

1. Company/Product Number 83529-XX	2. EPA Product Manager Kathryn Montague	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Sharda USA LLC / Sharda Metolachlor 84.4EC-D	PM# 23	
5. Name and Address of Applicant (Include Zip Code) Sharda USA LLC c/o Wagner Regulatory Associates, Inc. P.O. Box 640 Hockessin, DE 19707 <input type="checkbox"/> Check if this is a new address		6. <b>Expedited Review.</b> In accordance with FIFRA Section 3(c)(3) (b)(I), my product is similar or identical in composition and labeling to: EPA Reg. No. 66222-87 Product Name: Parallel

**Section - II**

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input checked="" type="checkbox"/> "Me Too" Application.
<input type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For Section I and Section II.)**Section - III****1. Material This Product Will Be Packaged In:**

Child-Resistant Packaging <input type="checkbox"/> Yes* <input checked="" type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per container Unit Packaging wgt.	Water Soluble Packaging <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes" No. per container Package wgt.	2. Type of Container <input type="checkbox"/> Metal <input checked="" type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) HDPE lined bags
--	---	---	---

\* **Certification must be submitted**

3. Location of Net Contents Information <input checked="" type="checkbox"/> Label <input type="checkbox"/> Container	4. Size(s) Retail Container 1, 2.5, 5 gallons	5. Location of Label Directions <input checked="" type="checkbox"/> On Label <input type="checkbox"/> On Labeling accompanying product
---	--	--

6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input checked="" type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled	<input type="checkbox"/> Other ___ adhesive backed label _____
--	--

**Section - IV****1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)**

Name Cheryl Wagner	Title Agent for Sharda USA, LLC	Telephone No. (Include Area Code) (302) 635-7290 Cheryl@wagnerreg.com
-----------------------	------------------------------------	---

**Certification**

I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.

2. Signature 	3. Title Agent for Sharda USA LLC
4. Typed Name Cheryl Wagner	5. Date February 29, 2016

6. Date Application Received  
 (Stamped)



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

March 09, 2016

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

WAGNER REGULATORY ASSOCIATES, INC.  
SHARDA USA LLC  
PO.BOX : 640  
HOCKESSIN, DE 19707

Report of Analysis for Compliance with PR Notice 11-03

Thank you for your submittal of 03-MAR-16. Our staff has completed a preliminary analysis of the material. The results are provided as follows:

Your submittal was found to be in full compliance with the standards for submission of data contained in PR Notice 11-03. A copy of your bibliography is enclosed, annotated with Master Record ID's (MRIDs) assigned to each document submitted. Please use these numbers in all future references to these documents. Thank you for your cooperation. If you have any questions concerning this data submission, please raise them with the cognizant Product Manager, to whom the data have been released.

E-SUBMISSION

February 29, 2016

Document Processing Desk (REGFEE)  
ATTN: Kathryn Montague (PM 23)  
Registration Division (7505P)  
U.S. Environmental Protection Agency  
Office of Pesticide Programs  
One Potomac Yard  
2777 South Crystal Drive  
Arlington, Virginia 22202



**Re: Application to register a new end-use product - "Sharda Metolachlor 84.4EC-D" (PRIA R300)**

Dear Ms. Montague:

Wagner Regulatory Associates, Inc., as agent for Sharda USA LLC, is requesting registration of the above referenced product. In support of this request, enclosed are the following documents:

- Letter from Sharda USA LLC, appointing Wagner Regulatory Associates, Inc. as its agent
- Application for Pesticide Registration (8570-1)
- Confidential Statement of Formula (8570-4)
- Formulator's Exemption Statement (8570-27)
- Data Matrix, EPA internal and public (8570-35)
- Certification Statement (8570-34)
- Draft label
- Statement with Respect to Label Integrity
- A copy of the receipt confirming payment of the required registration fees – R300 \$1,582
- Data reports as listed in the Transmittal Document

If you have any questions about this submission please contact the undersigned at (302) 635-7289 or [cheryl@wagnerreg.com](mailto:cheryl@wagnerreg.com).

Respectfully submitted,

A handwritten signature in black ink, which appears to read "Cheryl R. Wagner".

Cheryl Wagner  
Agent for Sharda USA LLC

Enclosures

DOCUMENTUM

**DATA TRANSMITTAL DOCUMENT****1. Name and Address of Submitter**

Sharda USA, LLC  
c/o Wagner Regulatory Associates  
PO Box 640  
Hockessin, DE 19707

**2. Regulatory Action In Support Of Which This Package Is Submitted**

Application for Registration  
Sharda Metolachlor 84.4EC-D

**3. Transmittal Date**

February 29, 2016

**4. List of Submitted Studies**

49831501	Metolachlor 84.4 % EC (with Dichlormid) – Group A Product Identity and Composition, Description of Materials, Description of Manufacturing Process, Discussion of Formation of Impurities, Toxicity of Impurities and Certified Limits OCSPP Guidelines: 830.1550, 830.1600, 830.1650, 830.1670, 830.1750
49831502	Physical and Chemical Characteristics of Metolachlor 84.4 % EC (with Dichlormid), Study No. ARC-EX-1713-004-P-1, EPA Guidelines: 830. series
49831503	Accelerated Storage Stability and Corrosion Characteristics of Metolachlor 84.4% EC (with Dichlormid), Study No. ARC-EX-1714-009-P-1, EPA Guideline 830.6317, 830.6320

**Company Official:**

Cheryl Wagner  
Authorized Agent

Cheryl R. Wagner  
Signature

**Company Name:** Sharda USA LLC

**Company Contact:**

Cheryl Wagner  
Authorized Agent

(302) 635-7290  
Phone

DOCUMENTUM







SUPERSEDED

8/5/16

by CSF dated

Basic ☒ Alternate ☐